FINAL REPORT

OF THE

REVISION OF THE SETTLEMENT

OF THE

GURDASPUR DISTRICT, 1912.

BY

F. W. KENNAWAY, ESQUIRE, I. C. S., SETTLEMENT OFFICER.

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FINAL REPORT

OF THE

REVISION OF THE SETTLEMENT

OF THE

GURDASPUR DISTRICT, 1912.

CHAPTER I. -THE DISTRICT.

- 1. The Gurdaspur district, situated in the north-east of the Lahore division, has a total area of 1,826 square miles, of which 1,290, or 71 per cent., are cultivated: it contains 2,363 estates, or the largest number in the province, with the single exception of the Sialkot district: it stands 23rd in area, 8th in population and 1st in the amount of land revenue paid among the districts of the province. On the north it is bounded by the territories of Jammu and Chamba, on the south by the Amritsar district, on the east by the Chakki river, which divides it from Kangra, and the Beas, beyond which are the Hoshiarpur district and the Kapurthala State, and on the west by the districts of Amritsar and Sialkot.
- Of the four tahsils which comprise the district the two southern, Batala and Gurdaspur, "are situated in the Bari Doab between the Beas and Ravi rivers, and present the ordinary features of the submontane portions of the Punjab plains. Pathankot, which is to the north of Gurdaspur, lies mostly between the Chakki stream (an affluent of the Beas) on the east and the Ravi on the west, but includes Chak Andhar, a small tract beyond the Ravi and between that river and its tributary the Uih, which is copiously irrigated by a network of petty canals. Chak Andhar and the rest of the lower portion of Pathankot is in a modified degree a terai country, with luxuriant vegetation and a damp malarious climate, while the upper portion is a wedge running into the lower Himalayas, an arid, stony, undulating region for the most part, but with fairly fertile valleys here and there, and a moderate growth of pinc forest on the higher ridges. In this tahsil, too, are included the hill station of Dalhousie and military cantonments of Balun and Bakloh, which are detached patches in the midst of Chamba territory. The fourth tahsil is Shakargarh, which is situated in the Rechna Doab, to the west of the Ujh and Ravi. This tahsil contains country which differs widely from the rest of the district, its northern portion, which lies below the low hills in Jammu territory, being a dry, treeless, upland tract, much cut up by ravines, while below this tract, to the east and south, is a fertile, highly cultivated country, with water near the surface, the southern portion of the tahsil, which it known locally as the Darp, being unsurpassed in natural fertility by any part of the district But even the richer tracts of Shakargarh contain but few groves and gardens, though the Paintla, or country between the uplands and the Ujh, is characterized by an abundant natural growth of shisham, which is a pleasing feature in the landscape of this portion of the tahsil."
 - 3. The submontane character of the district is favourable for rainfall which usually is sufficint in amount and what is more important, is well distributed.

The 20 years' average for different months by the tahsil rain-guages is shewn below:—

	Tehsi	1.	June to August (kharif hervest).	September to February (rabi harvest).	March to May (cane and cotton sowings)	
Batala	111		 16· 3 7	7-56	2.72	
Gurdaspur	•••	•••	 22.72	10.75	3.18	
Shakargarh	•••	•••	 21.16	10.21	3:28	
l'athankot	***	•••	 31 26	18-56	8.69	

The rainfall clearly diminishes as the distance from the hills increases. Canal-irrigated crops in the *kharif* are largely, though not entirely, independent of rain, but well irrigation is only used to supplement rainfall, and with its wide *barani* areas the greater part of the district may suffer severely from drought; actual famine is unknown, although the Bharrari of Shakargarh sometimes approaches perilously near it after two successive crop failures; but liberal suspensions of revenue are required over most of the district if the monsoon or cold weather rains are scanty or ill-timed.

- 4. The climate is more temperate than in the Central Punjab districts and is generally healthy except in Pathankot and the swampy parts of Gurdaspur tahsil: in the uplands of Shakargarh and in Batala, though at times malaria levies a heavy toll on the inhabitants, the climate is notably healthy and invigorating. No records of temperature are kept, but the district generally is probably quite 8 degrees cooler than Lahore in the hot weather.
- Little improvement has been effected in communications since last settlement. The Amritsar-Pathankot Communications, roads and markets. Railway runs through the centre of the Batala, Gurdaspur and Pathankot tahsils as far as Pathankot town, from which an extension to Nurpur in the Kangra district is now projected. A survey has also been made of a new line to run from Amritsar to Dera Nanak in the Batala tabsil and thence, crossing the Ravi and running through the southwest corner of the Shakargarh tahsil, into the Sialkot district. A project for a mono-rail from Batala to Aliwal, Fatehgarh and Dera Nanak is also under consideration. Excluding the 30 miles of the Pathankot-Dalhousie road which runs through the Pathankot tahsil to just beyond Dunera there are only 22 miles of metalled roads in the district, but the branch to Dorangla and the extension from Tibri to the Naushahra ferry on the Beas will add another 9 miles to this. Shakargarh tahsil possesses no metalled road. The district, however, is amply supplied with unmetalled roads of varying quality, and except during the rains communications are not difficult. Batala, with a population of 28,187, is the only town of importance in the district, but a grain market has recently been built at Gurdaspur, and Pathankot, as the rail-head, draws much of the trade of Chamba and the Kangra district. Numerous small centres provide adequate trading facilities, and prices vary little at the different
- 6. The district is densely populated, and the pressure on the soil is often severe. Between 1901 and 1911 the population had declined from 940,334 to 836,771, the decrease being mainly due to plague-mortality and emigration to the canal colonies. Nevertheless the incidence per square mile of cultivation is still high, being 606 in Shakargarh, 613 in Gurdaspur, 667 in Pathankot, 712 in Batala and 649 over the whole district. The personnel of the cultivating classes is good, except in Pathankot tahsil; the weaker tribes, as usual, having retreated towards the hills. Jats predominate in the lower and Bajputs in the upper portions of the district. Hindu Jats hold 29 per cent.

of the total area, Musalman Jats 9 per cent., Rajputs, half of whom are Musalmans and half Hindus, 30 per cent., and Gujars 9 per cent.

7. Except in the Pathankot tahsil, the Bharrari circle of Shakargarh, Cultivated area, water-supply and irrigation.

and the swampy areas of Gurdaspur, the whole district is closely cultivated, and there is little room for extension of the area of cultivation, which has been practically stationary since last settlement. The details of cultivated area are given in appendix I.

The water-supply throughout the district is ample: in addition to the main rivers, the Ravi with its affluents, the Ujh and Bein, and the Beas with its tributary, the Chakki, there are several minor streams and the hill torrents of the Shakargarh and Pathankot tahsils. A feature of the Gurdaspur tahsil in particular is the presence of numerous swamps, the chief of which is the great Kahnuwan marsh which lies along nearly the whole length of the Gurdaspur tahsil on its eastern side. With water nearly everywhere close to the surface well-irrigation is easy, and, except in canal-irrigated areas, in the river valleys, in the Pathankot tahsil where the rainfall is heaviest, and in the north of Shakargarh, where the depth to water is an obstacle, is very generally utilised; the total well irrigated area being 142,953 acres, or 18 per cent. of cultivation. The depth to water varies from a few feet in riverain tracts to as much as 75 feet in the Riarki tract of Batala tahsil. In the Bharrari of Shakargarh tahsil the average depth is 50 feet, in the Dhaia ('hambh tract it varies from 30 to 40 feet, and in the rest of the district the depth is from 25 to 30 feet. Wherever possible, however, the people prefer to avail themselves of canal-irrigation from the Bari Doab Canal, and, in Pathankot tahsil, from the numerous private channels which take off from the Chakki, and from the several affluents of the Ravi. From the latter nearly the whole of the Chak Andhar tract is flooded during the monsoon. The Bari Doah Canal has its head-works at Madhopur in the Pathankot tahsil and runs through the district in a south-westerly direction, giving off three branches, the Kasur, Sobraon and the Lahore, before its main line crosses the border into the Amritsar district. Irrigation is supplied from 44 distributaries and is given in the kharif only, except in a few villages on the Amritsar border which have a supply in both harvests; the total recorded irrigated area is 59,929 acres, an increase of 24,145 acres or 40 per cent. since last settlement.

8. The comparative importance of the principal staples is shown in percentages on annual matured area in the subjoined table:—

			Batala.	Gurdaspur.	Shakargarh.	Pathankot.	District.
Rice			3	7	2	19	7
Cane	•••		7	7	Б	4	6
Cotton	•••		2	1	ь	2	2
Maize	•••	,	Б	7	9	11	7
Mach	•••		5	8	4	6	6
Moth	•••		3	5	2		3
Til			4	5	1	2	3
Wheat .	•••		26	26	32	32	29
Barley	•		2	2	4	2	2
Wheat and gr	ram		15	14	2	2	9

Cane and wheat, with rice in Pathankot, are the chief crops, and it is thus apparent that the district is extremely rich agriculturally: the canal-

rrigated cane of Batala and Gurdaspur and that raised with well-irrigation in the rich soil of the central Darp of Shakargarh are probably the equal of any in the Punjab. Wheat also is a most paying crop, and Ralli Brothers and other exporters take large quantities away by rail.

9. Only 47 per cent. of the cultivated area is cultivated by the actual ownership, tenancies and rents.

land owners: in Pathankot the percentage falls as low as 36 owing to the predominance of the Rajput landlord. Holdings are larger among Rajputs than among Jats, and hence we find the average of 8 acres per sharer in Pathankot as against 7 in Gurdaspur and 6 each in Shakargarh and Batala. In Shakargarh the general run of holdings is much smaller than the figure given, the average being raised by the number of Rajput owners in that tahsil. Eight per cent. is under occupancy tenants, paying mostly at revenue rates with a cash malikana or, in Pathankot, with a small malikana in grain. Of the 44 per cent. under tenants-at-will, two-thirds pay rent in kind and one-third in cash. In Shakargarh and in Pathankot (except in the Andhar circle where tenants have to be offered special inducements) the area under cash rents is not very important; it is much more so in the other two more advanced tahsils, being 23 per cent. in Batala and 16 per cent. in Gurdaspur, but the landlord's tendency is decidedly towards a rent in the form of a share of the produce. With high prices and a comparatively low revenue-demand the landlord has come to recognise the great advantage of a kind-rent and in most places is strong enough to impose this form of rent on the tenant. Although in a good year the tenant profits considerably from a cash rental, yet in a bad year the rent in kind is more equitable, especially as cash rents are rarely, if ever, remitted: he is thus not unwilling to hold his tenancy on a produce-rent.

10. The principal figures for land sold since last settlement and now

Transfers and price of land.

		No. of the last of		Action to the second			
		Sales si: settle	GES NOW				
Tahsil.		Percentage of culti- vated area.	Average price per cul- tivated acre.	Percentage of cultivated area.	Average price per cul tivated acre.		
	-		Rs.		Rs.		
Batala	•	6	101	18	99		
Gurdaspur	•••	6	96	21	87		
Shakargarh		. 2	104	26	86		
Pathankot		е	65	23	45		
District		5	100	22	83		

held under mortgage are shewn in the margin. Sales are not abnormal: the area mortgaged has increased from 18 per cent. to 22 per cent. only since last settlement, but more than half of this is in the hands of other agriculturists.

The burden of agricultural debt, however, is best gauged by a comparison with redemptions of mortgages. In the first ten years after last settlement mortgagors were able to redeem an area equivalent to only 60 per cent. of the area which had been

mortgaged during the same period. There has been a sustained improvement in this figure, until, in the quinquennium just closed, we find 7 per cent. of mortgaged cultivation redeemed as against 6 per cent. only mortgaged in the same period. If this process continues, as may reasonably be expected, a progressive decrease in mortgaged area may be looked for. Since the quinquennium immediately succeeding last settlement the sale-price of land has appreciated by 40 per cent. in Batala, 26 per cent. in Gurdaspur, 32 per cent. in Shakargarh, and 50 per cent. in Pathankot. This is the fairest comparison which can now be made, but when the figures for the quinquennium succeeding this settlement are available the increase in the value of land will no doubt be even more marked.

The increase in redemptions and the fact that the price of land has not only kept up but increased may safely be attributed in part at least to the beneficial effects of the Alienation of Land Act, the blessings of which are freely acknowledged by the agricultural classes.

Agricultural stock are sufficient: there is little change in the number of plough eattle since last settlement: many have been taken off by the emigrants to the colonies, and the old and useless stock which used to swell the numbers in previous cattle-enumerations are now disposed of to butchers. Milch eattle have increased and the she-buffalo is replacing the cow for dairy purposes: the former is a more hardy animal; it will eat swampgrasses which the cow will not touch, and its yield of milk is much greater. Though some ghi is sold locally, milch eattle are not kept as a rule by the landowner for profit, as is natural in a country where grazing is scarce and the eattle have to be stall-fed for the greater part of the year. The price of eattle, as the zamindar (in this district a buyer rather than a seller) is always ready to deplore, has practically doubled during the last 20 years. The growing prosperity of the people is evidenced by the greater numbers of ponics which are now kept by all zamindars of anything above average status.

Outside agriculture there are comparatively few sources of income to the landowner: Jats and Rajputs enlist in fair numbers, Gujars keep sheep and goats and breed a few cattle for sale, and in the Bharrari of Shakargarh the sale of *kikars* which grow freely in the upland wastes to charcoal-burners is an expanding and profitable trade. Other ancillary assets are insignificant.

CHAPTER II.-FISCAL HISTORY.

12. A full and interesting account of the somewhat complicated earlier revenue history of the district is contained in chapter II of the last Settlement Report, and for the purpose of the present report only a brief summary is required.

On annexation in 1849 the nucleus of the present district was formed by the creation of the district of Adinangar, comprising most of the cis-Ravi portion of the existing district: three years later the trans-Ravi portion, consisting of the Shakargarh talisil and the Chak Andhar, were transferred from Sialkot and 87 villages round Pathankot from Kangra. The three talisils of Batala, Gurdaspur and Shakargarh then assumed nearly their present formation, but it was not until 1861 that the Pathankot talisil was completed by the addition of the hill villages. The Dalhousie sanitarium was acquired one year previously, and Balun and Bakloh in 1866.

The first regular settlement was sanctioned for ten years from 1852 in the whole of the district (except the Shahpur Kandi tract which practically corresponds with what are now the Pahari and Kandi circles of the Pathankot tahsil), and the second regular settlement for 20 years from 1865. This was the settlement carried out by Messrs. Prinsep and Lyall and their measurements have formed the basis of the surveys carried out at the last and present settlements: it is also notable for the decrease of the assessment imposed, for the imposition of a canal water-advantage rate, for the abortive abiana system introduced by Mr. Prinsep, and for the fact that no report on it was ever submitted.

The Shahpur Kandi tract was settled together with the rest of the Kangra district; the settlement was sanctioned for 30 years from 1850, and consequently did not come under re-assessment until last settlement: from 1869 to 1873, however, after the transfer of the tract to this district, a revision of records was carried out simultaneously with the revision of the records of the rest of the Kangra district.

At last settlement, which lasted from November 1885 to February 1892, or a period of $6\frac{1}{1}$ years, the whole district, as at present constituted, was subjected to map correction, revision of records and re-assessment.

The result of the various re-ssessments is shown in the table below:

		18T REGULAR SETTLEMENT.			2ND REGULAR SETTLEMENT.		EGULAR EMENT.		
Tabsil,		Rupecs.	Rupecs. Increase or decrease, per cent.		Increase or decrease, per cent.	Raņecs,	Increase or decrease, per cent.	Remares,	
Batala		4,11,922	-14	3,78,641	-7	4,81,796	+ 27		
Jurdasp u r		4,26,780	16	3,84,334	10	4,51,147	{ +17 } +15		
Shakargarh		3,28,929	- 15	3,13,445	- 5	3,79.695	+22.3		
Pathankot		2,44,407	+ 4* - 10} - 30‡	i	{ +0* -11;	2,36,781	+12.6	*Shahpur Kand: †Chak Andnat. ‡Rest.	
District		14,12,038		12,94,780		15,49,419	+ 19.9		

13. The working of the last settlement has been eminently fair and The series of bad years equitable. The last settlement.

		į	PERCE	NTAGE.
Tub	sil.	Su	spended.	Remitted.
Batala			.7	•06
Curdaspur			2.3	16
Shakargarh			6	2.2
Pathankot			3.4	.7
Dist	rict		3	·s

which was inaugurated by the severe scarcity of 1896-97 led to frequent and heavy suspensions of the demand, but the revenue was designedly lenient and the district has great recuperative powers: comparatively little remission has therefore been required. The suspensions and remissions in each tahsil are shown, in the form of percentages on the average khalsa demand since settlement, in the table in the margin. Since then the worst harvest on record since settlement has occurred in kharif 1911, but an excellent rabi in 1912 has allowed of considerable recoveries of the suspensions then granted.

Shakargarh is clearly the weakest tahsil so far as sustained revenuepaying capacity is concerned, but this is mainly due to the large Bharrari circle where there is no well protection and the wide barani areas need ample and timely rains. Holdings in Shakargarh are moreover smaller than in any other tahsil, and this factor renders leniency in collections still more essential.

CHAPTER III.—REVISION OF THE RECORD.

System of measurement-(1) at last settlement:

Tract.	Length of karam, in inches.	Number of kanals in an acre.
Tabsils Batala, Gurdaspur and Pathankot, except Chaks Andhar and Pa-	60	9-68
hari. Tahsil Shakargarh and Chak Andhar of Pathankot. Chak Pahari of Pathankot	66 57 · 5	8 10•54

14. Different units of measurement, as shewn in the margin, prevail in different parts of the district. Except in the Pahari eircle of Pathankot, where most of the maps were on the scale of 30 or 50 karams to an inch, the village maps were all on the scale of 40 karams to an inch, and this has been maintained in the present settlement.

system of measurement adopted at last settlement was peculiar. The existing maps dating from the 1865 or, in the case of part of Pathan-

kot, the 1872 settlement were utilised, and the effect is thus described in paragraph 35 of the last Settlement Report: "it is somewhat misleading to speak of the process which has been gone through as a new measurement at all,

since all that has been done was to amend the old field maps by bringing to record all changes that have taken place up to date, owing to the breaking up of new land, river action, construction of roads and canals, or the partition of fields and holdings. The field map so corrected was then checked by laying down squares of 200 kadams, i.e., 1,000 feet a side, and testing the correction (sic.) of the delineation of the field boundaries by chaining carefully the sides and diagonals of the squares and noting the intersection points. If the former field map proved accurate, the field were drawn in on mapping sheets, each ruled into 16 squares on the scale of one inch=40 kadams. differences in linear distances of field boundaries were neglected to avoid giving rise to troublesome boundary disputes, and, wherever possible, the former areas recorded were accepted. Where, however, owing to incorrect mapping or other reasons, the delineation of the fields was proved to be wrong, the erroneous portion of the former map was re-measured on the new system. Consequently our present maps are a patchwork of fields measured, some on the old and some on the new system, and it has therefore been necessary to retain the figures denoting linear dimensions of field boundaries on the map. They are of course, therefore, not quite so pretty as maps of a complete remeasurement, and the scale test cannot always be relied on where former measurements have been incorporated, as the line on the map shows the correct distance, whereas the figures give the distance recorded at settlement, which may be a kadam or two more or less than the scale distance."

It was obvious that maps so prepared could not come up to the ideal of accurate survey, but no difficulty had been experienced in using them, and it was decided that measurement operations should be confined to mere correction of the old maps, except in the Beas and Ravi riverains and wherever complete survey was necessitated by changes or inaccuracies which had caused practical inconvenience in crop inspections or partitions or to the Civil Courts.

15. In the present settlement three different systems of survey have been employed, except in the case of the hill stations of Dalhousie, Balun and Bakloh.

- (1) Complete re-measurement on the square system.
- (2) Map correction on the lines laid down in Financial Commissioner's circular letter No. 13, dated 16th March 1909.
- (3) Summary map correction.

The first method was adopted in the cases mentioned above.

Estates re-measured.

NUMBER RE-MEASURED. Total number of Tahsil. On account estates. of changes since settlelu civeraiu Total. tracts. ment. 49526 23 49 Batala 699 Cardaspur 3 71 74 Sheilargarh 7462 31 33 Patitankot 423 22 22 • • • Total 2,363 31 147

number of estates so re-measured is shewn in the margin, and in addition, 14 villages were re-measured as part of the training of officials. These 14 and the 31 villages re-measured on account of changes since settlement were surveyed on the ordinary square system, but the measurement of the riverains of the Beas and Ravi requires some detailed notice.

16. The question of measurement in riverain areas which are subject to di-alluvion rules early came under discussion. Patwaris' measurements of large areas of sand or water are notoriously inaccurate, and the chief resulting

inconvenience is the failure of boundaries to lock properly. In tahsils Batala

and Gurdaspur the Beas gives a long river frontage on the Hoshiarpur district and Kapurthala State, on the north of Batala the Ravi for a short distance forms the boundary with Sialkot, and the same river separates tahsil Shakargarh from Batala and Gurdaspur. For the survey of these areas the system about to be described was adopted after much discussion between Captain E. A. Tandy, R.E., and Lala Maya Das, Puri, of the Survey Department and myself.

The Survey Department engaged to supply us with a set of squares laid out by scientific methods as a basis for our boundary demarcation and internal measurements of riverain villages; field parties of the Survey Department surveyed the bed of the river, and the Lahore riverain drawing office of the department then furnished us with 26-inch sheets (i.e., ordinary musavis) referable to a single set of squares and showing the following details for the whole length of the boundary:—

- (1) The paper boundaries transferred from the settlement maps of all riverain villages. These were obtained by enlargement from the Survey Department 4-inch sheets which in turn are a reduction from our settlement maps.
- (2) The traverse points marked on the ground by the field parties.

 These were always adjacent to the actual or disputed boundaries.
- (3) The boundaries of possession as pointed out by the villagers on the ground.
- (4) Fixed points marked on the ground inside cultivation, to facilitate the work of internal measurement.

On these musavis the patwaris then proceeded to carry out their internal measurements: this they were easily able to do on the framework supplied. Base-line pillars have been set up and mark-stones placed on the opposite bank of the river. A special Naib Tahsildar was employed to report not only on the district boundary but also on all boundaries between villages in the riverain.

It had at first been intended to accept as correct the paper boundaries as shewn by the Survey Department in cases where there appeared to be no discrepancy, i.e., where the boundaries of villages were shewn as coinciding in the survey 4-inch compilation as enlarged to the 26-inch scale of our musavis. I found, however, that this did not give sufficient accuracy. More often than not the reproduction of the boundary on the ground from our settlement maps failed to coincide with that given in the enlargement from the 4-inch compilation, whether that compilation showed a discrepancy or not. This was due partly to the method of compilation and enlargement and partly to the fact that all discrepancies of under 2 chains had been meaned out in the Survey Department office. Were it not for the possibility that land now waste or under water might at any time become culturable by a change in the course of the river, it might have been possible to accept the compilation boundary in cases where large areas of valueless land or water were concerned; further, this standard of accuracy would hardly have been sufficient for the comparatively small areas involved, and would certainly not have been acquiesced in by the people.

Although we were thus unable to utilise the help of the Survey Department to the full extent that had been hoped for, yet their work has been invaluable to us. They have once for all provided a scientifically-accurate framework for the whole of the riverain, where we could not by any possibility have laid down a single base-line: they showed us where to look for discrepancies, and in many cases so indicated its cause that disposal of it was much simplified: our patwaris were enabled to measure the riverain area with ease and certainty at a cost which I calculate to be less than one-half of the expense of measurement on the ordinary system: and, lastly, owing to the single map which we now possess of the whole riverain on both sides, the troublesome and protracted boundary disputes hitherto associated with riverain tracts should now be a thing of the past.

The procedure described above was adopted for all riverain boundaries between the Batala and Gurdaspur tahsils and the following:—

- Kapurthala State.
 Hoshiarpur district.
- (3) Sialkot district.(4) Shakargarh tahsil.

It was considered unnecessary to carry the method into the Pathankot tahsil: the Ravi narrows considerably inside that tahsil and the Beas does not touch the district until it reaches the boundary of the Gurdaspur tahsil.

The second method, that of map correction, which was the onc generally employed, requires no detailed notice: the system prescribed in the Financial Commissioner's circular letter No. 31, dated 16th March 1909, although that letter was not issued until the settlement had been in progress for a year and-a-half, had been already adopted here. Tracings in pencil of the last settlement map were prepared at head-quarters on sheets of tracing cloth, each containing four survey squares; the map was then corrected in ink on the spot. These maps (part sirkar) are filed with the record in the District Revenuc Record-Room. Two con plete tracings on longcloth were prepared of each map: one of these (part patwar) has now under recent orders been filed in the tahsil, and the other (part girdawari) is the patwari's working copy.

The system of map correction worked very well, and the new maps are, I think, quite satisfactory. They necessarily reproduce many of the imperfections of the last settlement map from which they were traced, but the only one of any importance is that the scale test cannot be relied on In all cases, however, the actual length of the sides of every field has been given in the map and in practice no inconvenience is experienced. Doubts have been thrown upon the keeping qualities of tracing cloth, but the Public Works Department finds that their drawings on this material do not deteriorate and all our maps are preserved by being placed between sheets of cardboard.

18. The third method was employed in the hill circle of the Pathankot tahsil only; the existing Special system adopted in the Pahari circle of maps were corrected traces, on cloth, of the 1872 maps which had been prepared by the plane-table system of measurement. The people of the tract are backward and depressed, the country is difficult to survey, and there are wide stretches of jungle: litigation is considerably less than in the plains portion of the district, and the last settlement maps, though not of any high standard of accuracy, had served their purpose reasonably well: no increase of assessment could be looked for. In these circumstances the choice lay between complete remeasurement and leaving things practically as they were: after the people had been given the option

alternative was approved and the following procedure adopted: A new Correspondence ending with Settlement Commissioner's letter No. 1526, dated 11th May 1909.

Shajra nash was prepared and the last jamahandi was carefully scrutinised, all necessary mutations being outcred.

of complete remeasurement which they unanimously rejected, the second

all necessary mutations being entered up and attested. During the girdawari of kharif 1909 - the period of which was extended for the purpose—all changes in fields were marked on the patwari's copy of the last settlement map, which, with a fair copy containing the new numbering of the fields, was then filed as the "part sirkar" of the new settlement. The position and number of all pillars marking the boundary of the Shahpur Kandi forest area were also shewn on the map. In this special girdawari changes in soil and area were also noted. No khataunis were prepared, but the new settlement jamabandi was drawn up direct from the last jamabandi, the mutations, the corrected map and the special khasra girdawari, and the remaining documents required for the standing cord were also compiled. The system worked well and smoothly, and the savi. in time and trouble both to staff and people was most satisfactory. The result was brought thoroughly up to date and the map should prove sufficient.

practical requirements. It may probably be expedient to prepare a new survey map at next settlement, but for the present the expense to Government and the harassment of the people involved in protracted measurement operations have been avoided.

The hill station of Dalhousie and the cantonments of Balun and Bakloh were reserved for special Special survey of Dalhousie. treatment. Dalhousie was measured by plane-table survey in 1871 and 20 years later this map was merely corrected and brought up to date. In accordance with the orders passed in Punjab Government letter No. 184 Rev., dated 11th April 1910, a complete theodolite survey was carried out by trained Surveyors under the superintendence of Mr. Little, a retired Extra Deputy Superintendent of the Survey of India. Mr. Whitehead, I.C.S., the Assistant Commissioner of Dalhousie, in 1910 demarcated the estates of the different house and land owners, prepared the record-of-rights, and revised the existing register of estates. The map is on the scale of 32 inches to the mile with 50 feet contours, and areas were calculated in acres by means of the planimeter to four places of decimals. The result tabulated below illustrates the difficulty of attaining accuracy in hill-measurements by means of the patwari's plane-table method:—

Special Control of	<u></u>				Area in acres.				
		Date ci	f survey.	Private.	Government	Bazars.	Total.		
	9 4			25 Th 18 25					
1891	***	•••	• > •	368 6812	1,669.8812	2.9622	2,041 525		
1910	•••	•••	•••	377 0861	1,499.6216	6.0236	1,882.7613		
				500 64 14 8	1 1				

There had been no change in external boundaries since 1891. Bazars had naturally extended, but the great difference recorded in the area of Government land is due to more accurate survey of the large blocks of Government waste and forest. During the year of measurement the forest settlement of the Dalhousic Government forests was completed by the Deputy Commissioner and the different compartments have been shewn on the map.

The Municipal Committee is trustee of all Crown property in Dalhousle not in the possession of the various departments of Government. The land revenue due on private property was assessed by an all-round rate of Rs. 3 per acre at last settlement, and the same rate has again been imposed: this is assigned to the Municipal Committee.

Balun and Bakloh.

Gurkha Rifles, are Government properties; as accurate and recent Survey

Funjab Government letter No. 19, dated 17th February 1912, and Junior Secretary to Financial Commissioners' No. 5895, dated 16th August 1912.

The eantonments of Balun and Bakloh, the former a sanitarium for British troops and the latter occupied by the two battalions of the 4th

> Department maps of both cantonments are in existence, it was decided that revenue survey of them need not be undertaken, and that no revenue records should in future be kept up.

21.

The record-of-rights.

Although it is possible to be content with a moderate standard of accuracy in the field map, the accompanying registers demand the highest

accuracy that can be obtained, and it is for this reason that the saving of time in revision of records must always be limited unless the registers are kept more up to date between settlements than has hitherto been the practice. This is more especially the case in a district like Gurdaspur where the enormous number of estates (often with minute sub-division of holdings) necessitates the preparation of a corresponding number of records. Particular care was therefore devoted to the accuracy of the registers and the khataunis were subjected to exhaustive checks. The more important papers, other than the field map, comprised in the record-of-rights may be separately noticed:—

- (1) The genealogical table.—The 1865 settlement record contained a detailed genealogical table for each estate, together with a full account of ths history and constitution of the village. In the present settlement a full table has been given only for villages held on the pattidari tenure: in other cases the table was compiled for four generations back, and for further particulars a reference has been given to the 1865 genealogical table. This document has been prepared for owners only: none existed for occupancy tenants, and it was not considered expedient to prepare a new one. Such a table, to be of any use, must extend back to the time of the first regular settlement: it was obvious that its preparation would raise a multiplicity of thorny questions and give occasion for endless disputes between the reversionary owners and the tenants, and it was consequently decided that the attempt should not be made.
- (2) The jamabandi.—This is an exact copy of the khataunis prepared during measurement, complete with Jamabandi. indices of field numbers and owners in alphabetical order. The standing record contains the jamabandi for the year in which it was prepared: all changes which took place between the attestation of this jamabandi and the announcement of assessment were entered up as mutations and given effect to in the bachh. Changes caused by alluvion and diluvion subsequent to measurements were also given effect to in the bachk and noted opposite each holding in the remarks column of the jamabandi: in some cases the people wished land broken up since measurements to be assessed to revenue and in these a similar procedure was adopted.
- (3) Statement of rights in wells.—This important decument had been carefully and elaborately prepared at Naksha hakuk chahat. the two preceding settlements and was reproduced with such corrections and additions as were necessary.
- (4) Statement of rights in irrigation.—The irrigation from private eanals in the Pathankot talisil and the customs relating thereto are described in the following documents, of which the first was attested by the Naib Tahsildar and the last two by the Extra Assistant Settlement Officer:—
 - (1) Statement of irrigation.

 - (2) Wajib-ul-arz.(3) Riwaj-i-abpashi.

The first two form part of the mist happing of each village and the last has been prepared for the whole tahsil. Riwaj-i-abpashi. The statement of irrigation shows the kuhls or canals supplying irrigation to the village in question; the share of the village in, and the area irrigated by, each kuhl. The wajib-ul-arz describes each kuhl and the customs relating to clearance, irrigation turns, &c. The riwaj-i-abpashi has been separately prepared for each or source from which kuhls are taken off, and is a complete document in itself, giving a brief description of the chhirs and showing the customs relating to the clearance and repairs of the chhirs and kuhls, the distribution of the cost of such clearance and repairs, the construction of new canals and new heads for old canals, the construction of dams, and the acquisition of land, the water mills and the trees on the sides of the canals. It contains also a statement giving a brief description of each kuhl, the villages

served by it, the shares and the irrigated areas of the villages. At last settlement a separate riwaj-i-abpashi was prepared for the following chhirs:

- (1) Badshahi Canal.
- (2) Uttar Bheni.
- (3) Bhatayya.
- (4) Masto.
- (5) Sangarwan.
- (6 Baju and Jalalia.
- (7) Ujh.

All these have been brought up to date and a riwaj-i-abpashi for the Chakki stream has been added. In that relating to the Badshahi Canal the rules of management recently prepared by the Deputy Commissioner and myself have been incorporated.

- (5) The village administration paper is a record of existing custom, and in accordance with orders this is merely a copy of the old wajab-ul-ars with a column added for any changes, of which the attestation is authorised by section 37 of the Land Revenue Act. In cases of dispute the old entry has been reproduced and no attempt has been made to settle disputed questions by alteration of an entry. In di-alluvion villages a not infrequent change has been from the custom under which land recovered from the river is entered as becoming the property of the original owners to one whereby it becomes the common property of the village.
 - (6) List of revenue assignments.—A complete list of all revenue-free grants with a reference to the sanctioning orders has been included in the record.
- (7) Orders of the Settlement Collector (a) determining and (b) distributing the assessment.—These orders are complete in themselves: the first details the new revenue, date of introduction, deductions for deferred assessments, well leases, revenue-free grants and inams, and the instalments with the dates on which they are payable. The second refers to the old and new methods of bachh and details the latter so as to obviate the necessity of reference to the bachh files.
- The knowledge acquired by the Naib Tahsildar and kanungos during measurements can be of the greatest use to an assessing officer at village inspections, and the retention of a supervising staff that knows the villages is very desirable for the purposes of the bachh. I endeavoured therefore to lay out the programme of measurement work, so that it should not be finished in any one tabsil before the time came for assessment. The programme worked out very satisfacto: ily, although my calculations were somewhat upset by the over-staffing to which I refer in paragraph 59 below. I was not therefore faced with the alternatives of either reducing men whom I needed for assessment work because their measurements had been finished, or of retaining men with little or nothing to do because they were wanted in connection with assessment operations. With the increased rapidity of map correction and record work generally which will result from the latest rules on the subject, the problem which we were able to solve with some measure of success in this settlement is likely to cause embarrassment to the Settlement Officer of the future, unless measurement work is very earefully planned out at the start. I was anxious also to avoid engaging a horde of settlement patwaris and to work entirely with the district patwaris who in most cases knew their circles and were known to the people. Not only is the district patwari's local knowledge most useful in measurement and record work, whereas the ignorance of a new man is often a serious handicap, but the people themselves infinitely prefer a patwari whom they know and who, since he has to stay on after settlement, is generally careful to limit his demand on their purse and their patience; the temporary employé, who has to make the most of his time, is apt to exhibit a rapacity which is very trying to the villages and has much, I am convinced, to do with the traditional unpopularity of settlement, except in Batala, where the circumstance that Mr. Craik had only one year for his assessment necessitated the early completion of measurement work, hardly any settlement patwaris were employed. This measure met with more approval from the people than anything else during settlement, except perhaps the reduction of the demand, which affected only a few villages.
- 23. New village note-books have been started with the year of new assessment in each tahsil. The abstract village note-books of the 1865 settlement are preserved in the district kanungo's office: these contain the assessment

statistics used by the Settlement Officer and his village note in original. The abstract note-books of last settlement have been utilised as the basis of the new abstract note-books which have been re-bound and now contain—

- (1) Abstract statistics for the years between the last and present settlement.
- (2) Copies of the village inspection notes of all previous Settlement Officers, my own inspection note in original, and the few notes written by the Collector or his assistants between settlements.
- (3) A sketch map of the village with a statement showing the chief statistics upon which the assessment was based, and a table showing the theoretical Government demand as brought out by various methods.
- (4) A revised form for entering up the main statistics for the next 30 years, headed by the standard or settlement entry in each column. The danger rate for the village, if any, has also been shewn. The proper maintenance of these books is very important, and I am proposing special measures to ensure this end.
- 24. A new district map on the scale of 2 miles to the inch and tahsil maps on the scale of 1 mile to the inch have been prepared in English and are being reproduced at the Calcutta Map Office of the Survey Department. Similar maps in vernacular are being reproduced in the Islamia Press, Lahore.
- 25. Wherever existing tri-junction pillars, as was frequently the case, were in a state of disrepair, they were replaced by solid stone pillars from the Jhelum quarries: 3,562 of these measuring $1\frac{1}{2} \times 1\frac{1}{2} \times 3$ each were delivered in Gurdaspur at the rate of Rs. 7-4-0 per pillar and were paid for by the villages concerned, which are thus freed from the burden of keeping the old style of brick pillar in constant repair.
- 26. The boundary work done at last settlement is described in paraparable formulation of district boundaries.

 The present settlement Report.

 In the present settlement the examination of the boundaries with the Amritsar and Sialkot (except the few riverain estates) and Kangra districts and with the Chamba State gave little difficulty. In the case of the districts named the few discrepancies were duly reconciled and our maps signed by a representative of the district concerned. Similarly, the Chamba Vakil has attested the boundary with that State.

With the Hoshiarpur and part of the Sialkot district and the Kapurthala State, however, the boundary lies in the riverain, With the aid of the survey map, prepared as described in paragraph 16 above, a satisfactory boundary has at last been laid down. I was empowered to "define the limits of such estates as adjoin the riverain boundary" between Gurdaspur and the Hoshiarpur and Sialkot districts, and in exercise of those powers was able to decide all disputes. The comparison of our maps with those of the adjoining districts disclosed discrepancies, large or small, in every village, and a still further complication was often introduced by adverse or disputed possession; the Hoshiarpur karam, moreover, is only $57\frac{1}{2}$ inches and the maps of that district had been prepared by triangulation and not on the square system: further, several of their maps showed only the old deep stream boundary of 1872, the year when they were prepared. Riverain boundary work with such materials could not but be even more difficult, intricate and tedious than usual, and the attempt to lay down, on the new system of a single map, a whole district boundary line which should be permanently binding on two districts called for the greatest care in weighing the respective claims of each side. Disputes and discrepancies between adjoining villages in the same district, whether Gurdaspur or its neighbour, were also settled. I was fortunate in my Naib Tahsildar, M. Amrit Rai, who was put on special duty in the riverain

areas and worked directly under me. I trust that the results will be satisfactory in preventing the recurrence of those disputes which, under the old system of a separate map for each side of the houndary, inevitably occur.

Copies of the maps containing the decided boundary along the whole line have been furnished to the other districts concerned: these show a system of squares covering the whole riverain, and in each village the corners of one square out of the reach of floods have been marked by stone pillars, the site of which is of course plainly shewn in the map: from the base-line, so shewn, it will always be a simple matter to relay the boundary whenever this is required.

A similar procedure was adopted to demarcate the boundary between the Batala and Gurdaspur and the Shakargarh tahsil.

With Kapurthala a boundary had been settled as recently as 1902 by Mr. J. P. Thompson, C.S., who laid down a fixed boundary in place of the three remaining deep-stream boundaries. Some difficulty was experienced in ascertaining the exact boundary in a few cases, and on one occasion there was trouble with some Kapurthala villagers, but eventually the whole boundary was demarcated and shewn on a single map as described above. The attestation of this line was earried out by Mr. Craik, Assistant Settlement Officer, and Diwan Hari Chand representing the Kapurthala Darbar.

The line of pillars demarcating the boundary with the Jammu Province of Kashmir as laid down by the Commission under Captain Abbott in 1848 enters this district at pillar No. 1147 and terminates at pillar No. 1598 in the village of Bani Lodhi in the Pathankot tahsil: beyond this point begins the line determined by Mr. Burney who extended the fixed boundary to a point opposite Fort Lakhanpur and crected 36 pillars to mark out the line laid down The line runs at the distance of 306 yards from the left high bank of the river in the villages of Bani Lodhi, Jhandpur and Basrup, and at the distance of 612 yards in other villages, subject to deflections in favour of certain eyots in the villages of Bhadrali and Chhan. The pillars were creeted at some distance from the edge of the bank, and in laying down the line from them their distance from the edge has to be added to the distance of the edge from the line. Further on, the deep stream as modified by avulsion remained the boundary; but in 1890 Mr. Lawrence, the Settlement Officer of Kashmir, proposed, with the concurrence of the Settlement Officer of Gurdaspur, a fixed houndary, which, subject to certain modifications, followed the centre line of the river to a point just below Shahpur and beyond this the deep stream, except at two points, where certain areas had been carried off by avulsion. The proposed boundary was approved by the Kashmir Darbar and the Punjab Government, and appears to have been sanctioned by the Government of India (Punjab Government Proceedings, Foreign Department-Native States, Nos. 2-28 for April 1894, Nos. 50-52 for October 1894, and Nos. 8-25 for March 1895). At last settlement the village maps were earried up, as a rule, only as far as the "patri," a line of trees and brushwood of varying width, which has been allowed to grow up on either side of the true boundary line: in this settlement the whole line as described above has been mapped up to the line of pillars and duly attested; the several difficulties which occurred mainly owing to the reluctance of the Jammu subordinate officials to recognise the boundary as a straight line between pillars, where it differed from their maps, have been adjusted, and no question necessitating a reference to higher authority has arisen.

Upon one point connected with the Jammu boundary I have sent up a representation in letter No. 58, dated 30th January 1912, on which orders are awaited. It was decided in 1895 that the trees marking the boundary should remain the property of the Kashmir State: in many eases these trees are inside our boundary and are a frequent source of annoyance to our zamindars, who are uncertain what trees belong to them and what to the State, and are constantly apprehensive of claims against them for damage to Darbar property. I have suggested that the Kashmir State should dispose

of the trees which are of no use to them and are now unnecessary as boundary marks, owing to the presence of the pillars.

27. Mutation work has been exceptionally heavy as the subjoined table shows:—

	MUTAT	rations attreted in the four years 1907-08 to 1910-11.					
Description,	Number of mytations attested in						
	Batala.	Gurdaspur.	Shakargarh.	Pathankot.	Total.		
fartitions	 15,437	11,033	10,651	2,232	39,253		
inheritance	 9,308	7,605	7,889	4,981	29,783		
lifts and exchanges	 3,439	2,057	1,884	528.	7,908		
fortgages	 10,037	7,772	9,095	1,694	28,598		
tedemptions	 7,711	5,881	8,167	1,592	23,351		
inter	 1,332	1,048	252	397	3,029		
ther transfers	 26,072	21,237	28,861	8,266	84,436		
Total	 73,336	56,633	65,699	19,690	216,358		

The number of mutations attested in four years therefore falls short by less than 30,000 of the number attested in the six years 1885-86 to 1890-91, for which the figures are given in paragraph 43 of the Final Settlement Report of last settlement. As Mr. Dane then pointed out, the normal work under this head is portentous, and he advocated the appointment of an Extra Naib Tahsildar in each tahsil except Pathankot, or the grant to selected kanungos of the power to dispose of uncontested mutations in certain classes of cases. It was not until the last Settlement Officer became Lieutenant-Governor that these recommendations were put into effect. The latter alternative has recently been adopted and selected kanungos have been empowered to attest undisputed mutations in inheritance cases. It is now being found that this relief is inadequate, and proposals are being made for the appointment of additional Naib Tahsildars.

It is hardly necessary for me to emphasise the importance of mutation-work: the failure of the patwaris to enter them up and of the Assistant Collectors to keep pace with their attestation in the years preceding settlement is only partially accounted for by the mortality and disorganisation caused by plague. If any real effort is to be made in this district to keep the maps and records up to date between settlements, it is absolutely essential, as I have urged elsewhere, that the machinery for dealing with mutations should be improved.

28. In addition to the mutation work the following table shows the number of cases under the various heads which were disposed of during settlement up to the end of June 1912:—

Rent cases	***	•			381
Criminal cases	***	•••	***		86
Appeal cases	•••	,	•••	•••	300
Partition cases	•••	•	***		1,618
Lambardari cases					1,645
Patwari and kanungo cases	•••		•••	***	5,417
Boundary and other cases	••	• • •	•••	***	5,504
Muafi cases	***		•••	•••	2,491
			eT		
			Total .		17.442

This total of course excludes the numerous miscellaneous Revenue Officer's cases, of which no separate record is kept.

CHAPTER IV.—REVISION OF THE ASSESSMENT.

29. The re-assessment of the district was governed by the usual procedure, under which it is necessary to ascortain the half net assets of the owner of land on the supposition that all land is let by the landlord at a rent which may be taken either in cash or by division of the produce: half the net rent is the theoretical Government demand.

As the evolution of the full theoretical demand is the main factor in assessment, some account of the various processes is required. The first essential is the delimitation of the whole tract to be assessed into homogeneous circles, each of which may be treated as a unit for the purpose of assessment. Inside these circles the varying productiveness of different soils demands a still further sub-division into classes of soils. In the estimate based on cash rents, when circles and soils have been decided and the cash rents on each class of soil ascertained, the calculation of the Government demand is an easy matter: after making some allowance for fallows and for rents not collected, half the net rent which accrues to the owner is the theoretical maximum assessment which can be imposed. For the estimate based on kind-rents, however, the process is much more complicated and involves the determination of many more factors. It may be briefly described in the following formula: the matured acreage of each crop multiplied by the maundage of each crop per acre multiplied by the price per maund gives the gross value of the outturn: that value (minus any deductions that have to be made) divided by the proportion of the crop which the landlord takes as rent gives the value of the landlord's share: half of that share gives the maximum Government demand. Each of these factors requires some separate explanation. I deal with them in the order in which they have been mentioned above, reserving discussion of cash rents until the half net assets estimate based on kind-rents has been explained.

Assessment circles.

Assessment circles.

Assessment circles.

Assessment circles.

Assessment circles.

December 1908, and No. 1789, dated 2nd June 1909.

The limits of existing circles, as defined at last settlement, were with one exception retained. The introduction of canal irrigation into the Riarki in the east of the Batala tahsil had caused so marked a change in that tract that it was deemed advisable to separate off the canal-irrigated villages from the rest of the Bangar circle. As explained in paragraph 11 of the Batala Assessment Report, these villages, 73 in number, were amalgamated with the small Dhaia Bet Beas circle, in which 13 of the 21 villages had also received canal irrigation, and the new circle thus formed was re-named the "Eastern Nahri." The original Nahri circle in the centre of the tahsil was then distinguished by the title "Western Nahri." The present circles in each tahsil are therefore as under:—

Batala.	Gurdaspur.	Shakargarh.	Pathankot.
Eastern Nahri. Rangar. Western Nahri. Maira Kirao. Bet Ravi.	Dhaia Bet Beas. Bangar. Nahri. Maira Kiran. Bet Ravi.	Bharrari . Paintla. Bet Ravi. Darp	Andhar. Bet Rayi. Pathanti. Shah Nahri. Kandi. Pahari.

31. The importance of the classification of soils for a proper determination and distribution of the demand is so great that I endeavoured to effect some improvement in the classification of last settlement. The main divisions into irrigated and unirrigated were, as usual, retained, and in the former class no change was made. In the latter, however, the rohi and maira of last settlement were re-named Barani I and Barani II in tahsils Batala and Gurdaspur: by this method and a strict definition of each soil I was enable to throw into the first class the better descriptions of maira and into

the second the worse forms of rohi. In the Bharrari and semi-Bharrari villages of the Paintla and Darp of Shakargarh tahsila simpler and, I think, better classification of barani soils was also introduced, and the change was approved by the people. The rohi khal, rohi palahi, maira khal and maira palahi of last settlement were amalgamated into three classes only, designated Barani I, Barani II and Barani III, and these were clearly defined in the instructions Barani I includes the level plateaus, usually near the homesteads, as well as the lowlands in the valleys of rivers or torrents; Barani II is the sloping but unbroken uplands and Barani III is broken and denuded uplands. In eases of doubt the class of soil was decided according to the superiority or inferiority of the crops usually grown in the field in question. In the Pahari circle of Pathankot tahsil the three barani classes of dofasli, ekfasli and kut had after settlement been renamed Barani I, Barani II and Barani III and the revised nomenclature has been retained: Barani I represents dofasti and land growing superior classes of rice; Barani II is ordinary ekfasli land; and Barani III the stony terraces only cultivated spasmodically. The soils recognised in the present settlement are therefore chahi, nahri, chahi nahri, nahri-zamindari, abi, river sailab, chambh sailab, Barani I, II and III, banjar jadid, banjar kadim and ghair mumkin. Of these classes it is only necessary to notice those of which a definition is not given in the patwari rules. It may be explained that the ordinary definition of chahi was amplified, so that where any doubt existed, only land which had been watered from a well twice in the four preceding harvests was so entered. Chahi-nahri is land watered sometimes by a well and sometimes from a canal. Nahri-zamindari applies to land watered by private cuts from rivers or streams: chambh sailab is land inundated or kept permanently moist owing to its proximity to a marsh. Barani I, II and III have been defined above.

32. No one year can represent adequately the true matured area under each crop, and it was necessary to select a period the average matured area of which, as compiled from the crop returns, would represent a normal year's harvest. The periods selected for each tahsil were:—

Batala, Gurdaspur and Shakargarh,—kharif 1901 to rabi 1905, except (1) the Eastern Nahri of Batala, where the recent introduction of eanal irrigation necessitated the substitution of the year 1906-07 for the year 1901-02; (2) the Bet Ravi of Shakargarh, where the inroads made by the Ravi dictated the selection of the most recent average year 1909-10.

Pathankot,—kharif 1908 to rabi 1910, except the Bet Ravi, where the abnormal average given by these two years was corrected by the inclusion of the years kharif 1901—rabi 1905.

33. For the yields assumed for the various crops, all of which were accepted in the orders passed, I would refer to the various assessment reports or to the table separately printed by the Director of Land Records. The assumption of yields is the most speculative element in the formation of the half net assets estimate. I have little confidence in the results of experiments, and constant enquiry and appraisement, with inspection of private accounts when available, only enables a Settlement Officer to put forward a diffident approximation to the average yield for each crop in each of the various soils.

34. The sanctioned commutation prices in annas per maund were as under:—

Rice	26	Wheat	•••	30
Cane (gur)	46	Barley		18
Cotton	70	Gram		2 4
\mathbf{Maize}	23	Sarson	•••	4.8
Mash	32	Wheat and barley		22
Moth	24	Wheat and gram	• • •	25
Til	60	Barley and gram		21
Toria	38	Massar		90

The rise in prices since last settlement in each tahsil worked out at 10:39 per

cent. in Batala, 12.5 in Gurdaspur, 16.5 in Shakargarh, and 12.5 in Pathankot. As a matter of fact, the effective rise was certainly greater in each tahsil, partly because the prices assumed at last settlement were based on retail prices and not, as now, on those actually received by zamındars, and partly because the prices now assumed were not sufficiently high: the report on prices was submitted in 1908, when it was not so apparent as it is now that the enhanced prices then prevailing were likely to be permanent, and the assumptions were founded on the rates prevailing in the years prior to 1908, which did not justify the fixation of higher rates than those assumed. It can now be seen that a rise of not less than 20 per cent. in the Batala, Gurdaspur and Shakargarh tahsils and of rather less than 20 per cent. in Pathankot could safely have been assumed.

- 35. For cane and cotton zabti, or customary cash rates on area, were utilised in all tahsils except Batala, and, for other miscellaneous crops not detailed above, cash values, the details of which will be found in the various assessment reports, were assumed.
- Deductions from the gross outturn before division between landlord and tenant, and with the heavy wheat crop of the district hired labour has to be employed for the harvesting. Any estimate of the value of these deductions must necessarily be largely speculative, more especially as the rate of menials' dues, the method of payment, and the extent to which harvesters have to be employed vary considerably in different parts of the district. The diminution in the divisible produce is very marked when the actual process is watched on the threshing-floor, to which, moreover, the crop has only come after it has been depleted by the sheaves which the hired harvesters have taken away daily as payment for their labour. With the decrease in population caused by plague and the emigration of menials to less crowded districts or to the towns, and with the general rise in wages the expenses of cultivation and harvesting tend to become heavier and heavier: in several parts of the district the customary dues of menials in the rabi harvest have been doubled since last settlement in an attempt to keep this indispensable class on the land.

Detailed discussion of the deductions from the common heap will be Batala,—paragraghs 48-49.
Gurdaspur,—paragraphs 44-45.
Shakargurh,—paragraph 41.
Pathankot,—paragraph 34.

Detailed discussion of the deductions from the common heap will be found in the marginally-noted paragraphs of the different assessment reports.

37. From the gross produce, as thus diminished, the landlord proceeds to take the share which represents his Landlord's share. The most usual proportion in this rent. district is one-half, but along the Beas in Batala, Gurdaspur and Pathankot this drops to two fifths and even to one-third: in the marsh lands of the Kahnuwan chambh of Gurdaspur one-fourth only of the rice crop usully falls to the landlord: and in the Pahari two-fifths and one-third are the commonest rates on the inferior classes of barani soils. The rates throughout the district have hardly varied since last settlement. In the more advanced tahsils of Batala and Gurdaspur, except in the Dhaia Bet Beas, the landlord is gradually establishing a claim to take a share of the straw in addition to the grain: the share is usually the same proportion as that which is taken of the grain. In a fullycultivated district, where fodder is valuable, it is only natural that this claim should be enforced, and the custom will probably spread to the more backward tahsils of Shakargarh and Pathankot, where at present a share of the grain only is at present almost universally taken. The straw of all crops, however, is not equally valuable, and only a share of the straw of certain staples is taken. kharif crops rice and maize straw are only used as fodder in times of scarcity, but mash and moth stalks make excellent fodder and the landlord will take these when he can: in the rabi only the straw of wheat and gram and their mixtures need to be taken account of: barley with its mixtures is valuable, but for the purposes of the estimate was set off against the value of such crops as are cut green by the tenant for fodder or for thatching his ricks. As explained in paragraph 24 of the Pathankot Assessment Report, the landlord in the Andhar and Pathanti circles very generally takes a malikana of so many seers per maund of the gross produce, in addition to his share in division, but this custom is confined to the tracts where rice is the main staple: it is also more than counter-balanced by the expenditure, which falls on the landlord alone, of the up-keep of the kuhls or private irrigation channels without which the rice-crop could not be matured.

- 38. I have already explained the deductions which have to be made from the common heap before division, but there is a still further deduction to be made from the share of the landlord. In canal-irrigated villages he pays one-half of the occupier's rate levied by the Irrigation Department for the supply of canal water. The method by which allowance for this has been made is explained in paragraph 52 of the Batala, paragraph 46 of the Gurdaspur, and paragraph 35 of the Pathankot Assessment Reports.
- 39. The landlord's share having thus been obtained, the theoretical maximum Government demand was determined at one-half of that share.
- Cash rents.

 Cash rents are common only in the Satala and Gurdaspur tahsils and in the Chak Andhar of Pathankot. In the two former it is remarkable that the area under cash rents has declined in comparison with that so held at last settlement. We may deduce from this the lowness of the assessment, the high range of the prices of agricultural produce, the general predominance of the landlord over the tenant, and the readiness of the latter to adjust his rents so that he may reap the benefit of the rise in prices. In these two tahsils, moreover, the practice is for the owner to take cash rents on his worst land, and this he can only do when the demand for land is keen. In Shakargarh, on the other hand, it is by no means the rule for the worst lands to be cash-rented: the reason for this is the supineness of the Rajput owners in that tahsil; with large holdings, a cash rent is simpler and more easily collected than one in which the crop itself is divided: the same reason applies in the case of the Chak Andhar of Pathankot, but the tendency is there accentuated by the necessity for securing tenants who in this circle are mainly immigrants from Shakargarh and Jammu and other parts of the Pathankot tahsil.

Cash rents, as explained in the different assessment reports, have everywhere risen and special efforts were made to obtain a really careful elimination of all recorded rents which appeared for any reason to be abnormal. In Gurdaspur, Shakargarh and Pathankot I personally checked all lists of cash rents and decided which should be accepted as normal and which rejected. From the accepted rents the statements of normal rents which are shewn in the various assessment reports were compiled. The general run of cash rents is naturally highest in Batala and lowest in Pathankot, but the rise as compared with last settlement is greatest all round in Gurdaspur. Of the circles in which cash rents prevail to any extent the rise is smallest in the Andhar of Pathankot where it is 26 per cent, and largest in the Bet Ravi of Shakargarh where it is 86 per cent.

Patula,—paragraphs 57—61. Gurdaspur,—paragraphs 38, 39, 51, 52... Shakargath,—par. graphs 26, 43, 44. Pathan'tot,—par-graphs 25, 39. For a detailed analysis of the cash rents in the different tabsils I refer to the marginally cited paragraphs of the various assessment reports.

41. The half net assets for each tahsil as finally accepted by the Half net assets compared with demand sanctioned and imposed.

Financial Commissioner are compared below with the sanctioned assessments

and the demand actually imposed:-

						Assessment.			
		Tahsil.			Half net assets.	Sanctioned.	Actually imposed.	Percentage of column 4 on column 2.	
					Rs.	Re.	Rs.		
Batala	•••	•••		•••	9,35,000	6,19,506	6,13,785	65	
Gurdaspur		•	•••		8,00,000	5,52,500	*5,56,138	69	
Shakargarb		***	4+1	,	6,30,000	4,27,000	4,28,432	68	
Pathaukot	•••	***	•••	•••	3,54,000	2,53,500	† 2,56,991	72	
			District		27,19,000	18,52,500	18,55,346	68	

^{*} Includes Rs. 6,591 estimate for fluctuating assessment on chambh lands in the Dhaia Bet Beas circle (paragraph 65 of Gurdaspur Assessment Report).

† Includes a sum of Rs. 1,213 specially assessed in Dalhousie.

It will be seen that Government has thus taken little over two-thirds of the full amount actually claimable. It has also to be remembered that the half net assets estimate was framed with the greatest caution and is certainly well within the true assessable value of the district. In no case was the total proposed demand enhanced in the orders passed, but the proposed method of assessing canal-irrigated land was not approved: this subject will be noticed in paragraph 43 below. In the following circles, Eastern Nahri, Western Nahri and Bet Ravi, of Batala, Bet Ravi and Dhaia Bet Beas of Gurdaspur, Paintla and Darp of Shakargarh, and Bet Ravi, Shah Nahri, Kandi and Pahari of Pathankot, the Financial Commissioner did not consider it prudent to take as much as I had thought possible.

42. The whole demand is fixed, with the exception of those chamble areas in the 37 Kahnuwan villages of the Gurdaspur tahsil in which the fluctuating system introduced in 1878 has been maintained: this will be noticed below (paragraph 45).

Assessment of land irrigated by the Bari Doab Canal, and Government canal had to be considered in connection with the carliest assessment reports submitted, those of Batala and Gurdaspur. The lines to be followed had then just been under discussion in the course of correspondence on the assessment of land irrigated by the Western Jumna Canal. The proposal to consolidate all charges in a single set of occupiers' rates had been negatived, and the desirability of a wet assessment, with or without an increase in the scale of occupiers' rates, had been clearly indicated. In my note on the Batala Assessment Report and in chapter VI of the Gurdaspur Assessment Report I discussed the question fully, but my proposals for a nahri parta on commanded land, an owner's rate on area actually irrigated in each year, and an enhancement of certain of the occupiers' rates were not accepted. A mild wet assessment was imposed, the excess of the rate on nahri over that on barani varying from annas 8 to Re. 1 in the different circles: occupiers' rates were not enhanced, but it is of course open to Government to enhance them at any future date. The effect of the decision come to is that Government has foregone a not inconsiderable part of the enhancement which might otherwise have been taken on nahri land. As, however, a wet assessment has now been introduced for the first time, this was a politic measure.

As directed, I have sent up proposals for the adaptation to this district of the Western Jumna rules for the modification of nahri parta to meet extensions or reductions of irrigation, but in view of the probable constancy of canal-irrigation in this district I have not recommended that these rules be yet introduced: the Deputy Commissioner can at any time, under existing instructions, report, for the imposition or remission of nahri parta, and the machinery which the rules prescribe does not appear to me to be required. My reasons are set out in more detail in my letter No. 551, dated 31st August 1912.

Assessment.

44. The assessment of each tabsil will now be noticed :-

BATALA.

This tahsil was assessed by Mr. Craik, Assistant Settlement Officer, and the new demand was introduced with effect from kharif 1910.

Eastern Nahri circle.

					Rs,
Old deman	d	•••	***	8	1,835
Proposed	•••	•••	•••	1,8	1,060
Sanctioned	***	400	•••	1,2	
Imposed	***	••	***	1,2	
Increase	•••	***	•••	•••	33 per cent.
					Rs. A. P.
Rate per ac			***		$2 \ 0 \ 9$
Ditto	erop	ped	• • •	•••	$1 \ 14 \ 3$

This heavy enhancement was justified by the security conferred on the circle by the extension to it of canal irrigation from the Riarki main line

and the Athwal and Dhardev distributaries. But even so, the circle has been left lightly assessed owing to the impossibility of taking a larger enhancement per saltum.

Bangar circle.

	A 123 148		Rs.
Old demand	\0\0\7\0\1	1,3	4,384
Proposed		1,7	
Sanctioned		1,7	0,000
1mposed		1,7	1,035
Increase			27 per cont.
			Rs. A. P.
	ivated ब्रह्मध्य द्वार	•••	277
Ditto cror	pped		269

This circle includes the town of Batala with very valuable marketgardens and orchards: well-irrigation is Bangar. abundant, though the depth to water is

great. The assessment is a fairly full one compared with the other circles in the tabsil.

Western Nahri circle.

					Rs.
Old deman		•••	•••	•••	1,22,494
Proposed		1			1,75,970
Sanctioned	•••	***	***		1,66,000
Imposed			***	•••	1,61,725
Increase		***	•••	•••	
					Rs. A. P.
Rate per ac			•••		2 14 8
Ditto	crop	ped	• • •	•••	2 8 5

This is the most fertile secure and prosperous part of the tahsil, and indeed of the district, the existing assessment was very light, and the now assessment, in spite of the large enhancement, is still a lenient one.

Maira Kiran circle.

	_				Rs.
Old deman		•••	•••	8	7,148
Proposed		•••	***	1,0	9,868
Sanctioned	***	•••	***	1,0	8,500
Imposed	•••	•••	• • •	1,0	8,365
Increase	***	•••	***	***	24 per cent.
					Rs. A. P.
Rate per ac			***	•••	2 10 8
Ditto	crop	ped	***	***	293

For a comparatively weak tract with an inferior agricultural population this circle is the most fully assessed in the talsil.

Bet Ravi circle.

					Ks.
Old demand	•••	•••	***	***	41,751
Proposed	***	•••	•••	•••	51,500
Sanctioned		•••		•••	5 0, 000
$\mathbf{Imposed}$	•••	***	•••	***	50,425
Increase	***	***	***	***	2) per cent.
					Rs. A. P.
Rate per acre		• • •		***	2 14 3
Ditto "	eropped	***	•••		2 9 3

This is much inferior to the corresponding circle in the Gurdaspur tahsil, the encroachments of the Ravi had been disastrous, and protective embankments have not up to the present been very successful.

The rates charged on the Kiran Canal which is a scheduled canal under the District Board and irrigates 326 acres in the Maira Kiran and 931 acres in this circle were enhanced to Rs. 2 for flow and Re. 1 for lift irrigation, or double the previous rates.

The rates sanctioned for each class of soil in each circle are shewn below:—

		Soil.						
CIRCLE.		Chahi and chahi-	Nahri.	Nahri- zamindari. Abi,	River sailab.	Chambh- sailab.	Barani I.	Barani II.
***************************************		Rs. A. P.	Rs. A. P.	Rs. A. P. Rs. A. P.	Ra. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Eastern Nahri	•••	280	2 8 0	2 6 0	2 4 0	•	200	1 10 0
Bangar	***	3 5 0		3 5 0		•••	1 12 0	1 10 0
Western Nahri	•••	3 4 0	3 4 0	2 6 0		2 0 0	280	190
Maira Kiran		3 4 0	280	1 12 0 2 12 0		2 0 0	2 0 0	1 8 0
Bet Ravi		3 12 0		1 12 0 3 4 0	2 4 0		1 10 0	

GURDASPUR.

45. The new demand was introduced with effect from kharif 1910 as in Batala—

					$\mathbf{R}\mathbf{s}$.
	$B\epsilon$	et Ravi cir	cle.		
Old demand	•••	***		***	49,486
Proposed	•••		•••	•••	65,103
Sanctioned	***		***	• • •	63,000
Imposed	•••		***	• • •	63,304
Increase	•••	•••	•••	•••	28 per cent.
					Rs. A. P.
Rate per acre culti	vated	•••		•••	2 14 7
Ditto eropy		***			$2 \ 3 \ 4$

This is a fine circle with excellent soil, good well-irrigation and seenre in nearly all seasons. The demand is still very lenient.

Maira Kiran circle.

					${f Rs.}$
Old demand	**-	•••	• • •	***	1,06,605
Proposed	***	•••		•••	1,27,483
Sanctioned		***	***		1,26,000
Imposed	•••	•••	•••		1,26,592
Increase	•••	***	•••		
					Rs. A. P.
Rate per acre cultivated	•••	•••	***		2 4 3
Ditto cropped	•••	•••	***		2 2 10

Maira Kiran.

As in Batala, this is not a strong circle and the demand is as full as anywhere in the tahsil.

Nahri circle.

					R4.
Old demand		***	***	***	1,60,897
${f Proposed}$	•••	444	***	•••	2,24,264
Sanctioned		• • • •	***	•••	2,07,000
${f Imposed}$	***	•••	1+4	• • •	2,07,920
Increase	• • •		•••	•••	29 per cent.
					Rs. A P.
Rate per acre	e cultivated	***	***	• • •	2 9 10
Ditto	\mathbf{c} ropped		•••	• • •	2 6 9

Again like the corresponding circle in Batala this is a fertile, secure and prosperous tract: the southern half is a good deal stronger than the northern, and the former, is still quite leniently assessed.

Bangar circle.

					R_{s} .	
Old demand	***	•••	***	•••	53,068	
Proposed	• • •	•••	•••	•••	64,202	
Sanctioned		•••	•••		64,000	
1mposed	***	•••	***	***	64,580	
Increase	•••	•••	***	•••	22 per cer	ıt.
					Rs. A. P.	
Rate per acre			•••	•••	2 4 1	
Ditto	${f cropped}$	***	1	•••	\dots 2 5 6	

The wonderful moisture-retaining properties of the Riarki soil, in which cane is grown in barani lands, render this a very good circle. Wells have greatly increased in number but the depth to water is considerable and, if the rains fail badly, the crops cannot be saved. The enhancement taken is quite sufficient.

Dhaia Bet Beas circ'e.

		Rs.					
Old demand	***		(fixed Rs. 76,				
Proposed	•••	96,804 (fixed Rs. 90,	155 + fluo	tuating !	Rs. 6,649	ðj.
Sanctioned	***	92,500.					
Imposed	***	93,742 (fixed Rs. 87,1	151 + flac	tuating F	ks. 6,591	.).
Increase	•••	14 per ce	ent.				
						Rs. A.	Ρ.
Rate per acre	cultivate	d	•••	•••		l 15	0
	cropped		***	***		1]]	1

This is a weak circle, and, in recognition of the fact, the Financial Commissioner cut down my proposals considerably. Thirty-seven chambh villages, as explained in paragraphs 11 and 65 of the Assessment Report, have been retained under fluctuating assessment based on the following differential rates on the area of crops matured:—

		Стор.							mati	ured.
					······································			~	.	
								Rs.	A.	P.
Cane			***			***		2	10	0
Rice, 1st year	•••	•••	•••	•••	•••	•••		1	10	0
Do., subsequent	years		•••		***	***		2	12	0
Wheat	•••	•••	**1	•••	•••	•••	\	2	0	0
Others		•••	•••		•••	•••		1	8	0

The assessment on these villages is, I think, quite full enough, but elsewhere it is very properly a lenient one.

The rates sanctioned for each class of soil in each circle are shewn below:-

		Soil.																							
Circle.		Chahi and chahi- nahri.		Nahri		Nahri zamindari.		Abi.		River sailab.		Chambh sailab.			Barani I.		Barani II.								
		Re.	. A .	Р.	Rø.	Α.	P,	Rs	. А.	Р.	Rs.	Α,	Р.	Rs	. А.	P.	Rs	. A.	P.	Ra.	Α.	Ρ.	Rs.	Α.	P.
Bet Ravi		5	o	0	 	•••					8	4	0	2	6	0					•••		8	2	0
Maira Kiran		3	12	0	3	0	0	3	υ	o	2	8	0	2	8	o	2	0	0	2	4	0	1	8	υ
Nahri	•••	4	0	υ	3	0	0				3	O	0		•••		2	10	o	2	6	0	1	10	o
Bangar	•••	3	0	0	3	0	0		•		2	8	0					•••		2	4	0	1	10	0
Dhain Bet Bens	•••	4	0	o	8	0	0	3	0	o	2	2	0	2	0	0	1	12	0	2	0	0	1	6	0

SHAKARGARH.

Rhannani ainala

The new assessment was introduced with effect from rabi 1912. 46.

		4	sharrari corcie.			3	Rs.		
Old demand	•••	***		***	•••	1,0	4,0	12	
Proposed	•••	•••	Pall 11 34 56 1		***	1,1	8, 1	17	
Sanctioned Imposed	•••	•••		•••	•••	1,1			
Imposed Increase	•••	•••		***],1			
Anticaso	•••	***	litaria de la lace	***			•	r cent	i.
D.4	142					Rs.	A	Р.	
Rate per acre Ditto	cultivated	•••	ন্দ্ৰমান্ধ ক্মন	•••	***]	6	3	
THEFO	cropped	•••	***	***	***	1	8	7	

Influenced largely by the wishes of the people, I had proposed a fluctuating assessment for this circle, as ex-Bharra"i. plained in paragraph 48 of the assessment report, and in the alternative a fixed demand which the Financial Commissioner preferred. In confirming the Financial Commissioner's orders, Government have noted that, if any difficulty occurs in working the fixed assessment and the people desire a fluctuating demand, it will be possible to fall

back on some such system. With the light assessment imposed, however, and prompt suspensions in a bad year, I do not anticipate that difficulty will in practice occur. The Bharrari could probably pay double its present revenue in a really good year, but in a bad one hardly anything can be recovered from most of the villages.

Paintla circle.

						$\mathbf{R}s_{ullet}$
Old deman		•••	•••	***	•••	56,725
Proposed	***	***	•••	***		66,847
Sanction ed	***	•••	•••	**1		68,000
Imposed	***	•••	** *	•••		65,916
Increase	•••	***	•••	•••	•••	16 per cent.
<u>.</u>						Rs. A. P.
Rate per a	ere cultiv		***	•••		1 15 6
Ditto	cropp	ed .,.	***		***	1 14 7

The holdings in this circle are generally small, but even so, the assessment is still decidedly lenient.

Bet Ravi circle.

					Rs.
Old demand	• • •	•••	•••	•••	52,613
Proposed	•••		•••	•••	63,459
Sanctioned	•••	•••	•••	•••	63,000
$\underline{\mathbf{Imposed}}$	•••	***	•••		63,512
Increase	•••	•••	• • •	•••	Rs. A. P.
Rate per acre		***	•••	•••	2 4 9
Ditto	cropped	•••	•••	•••	2 2 8

This circle has suffered much from the destructiveness of the Ravi in recent years, several of the finest estates on the western side having lost large areas of the best land. Mainly owing to the inferiority of the Ujh villages and the absence of well protection, the tract is not so fortile as the Bet Ravi of Gurdaspur, to which it corresponds.

Darp circle.

						$\mathbf{R}\mathbf{s}.$
Old demand	•••	•••	•••		•••	1,53,002
Proposed	•••	4	• • •	***		1,83,610
Sanctioned	•••	•••	•••	•••		1,80,000
Imposed	***	• • •	4 4 4 4	***		1,80,669
Increase	•••	•••		* * *	•••	
		617				Rs. A. P.
Rate per acre	e cultivated			•••	***	262
Ditto	${f cropped}$	•••		***	•••	2 5 8

Though of varying fertility, this is a strong circle and the villages in the centre and south are inferior to none in the district: in these the rates are much higher than the averages given above; holdings are small and on the whole the tract is fairly fully assessed.

The rate sanctioned for each class of soil in each circle are shewn below:--

				Soil.							
Circle.		Chahi.	Sailab.	Barani I.	Barani II.	Barani III.					
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.					
Bharrari		4 0 0	2 4 0	1 12 0	100	0 10 0					
Paintla		500	1 12 0	2 5 0	1 8 0	1 0 0					
Bet Ravi		500	2 6 0	2 2 0	180	444					
Darp		8 13 0	2 8 0	2 6 0	1 8 0	1 0 0					

PATHANKOT.

47. The new demand was introduced with effect from rabi 1912. Andhar circle.

					Rs.
Old demand	•••	•••	• • •	•••	63,396
Proposed	***		•••	•••	71,151
Sanctioned	•••	***	•••	•••	71,000
Imposed	• • •	***	- • •	•••	71,909
Increase	• • •	•••	•••	• • •	13 per cent.
	٠				Rs. A. P.
Rate per acre		***	* * *	400	2 11 9
Ditto	cropped			***	1 15 0

Except in the west, this is an exceedingly rich circle with ample irrigation from kuhls. Rice is the main staple, and the comparatively low rate on area cropped is due to the large amount of inferior rabi crops sown in the rice stubble. The assessment is still lenient.

Bet Ravi circle.

						Rø.
Old demand	***	•••	•••	***	•••	22,980
Proposed	***		•••	•••	•••	26,386
Sanctioned	•••	•••	•••	***		25,500
Imposed	•••	•••	•••	***	•••	25,364
Increase	•••	•••	•••	•••		11 per cent.
						Rs A. P.
Rate per acr Ditto	e cultiva croppe		***	•••	***	2 . 0 9
20.000	oroppe	α	***	h	***	I 10 5

This is not nearly as strong a tract as the corresponding circles in GurBet Ravi. daspur and Batala; in the centre and
east however there are some good villages and the assessment is distinctly light.

Pathanti circle.

						Rs.	
Old demand	•••	***	-11-12-14 · ·	•••	•••	40,486	
Proposed	•••	44 Z 194		•••	***	43,890	
Sanctioned	*1*	4.2		***	• • •	43 000	
Imposed,	***	• • • • • • • • • • • • • • • • • • • •		***	***	43,644	
Increase	•••	••• 松瀬			***	8	per cent.
		C100			\mathbf{R}	s. A. P.	
Rate per acre	cultivated	***		***		2 12 9	
Ditto	cropped	***	N MINT	• • •	•••	2 2 3	

The villages in the south are inferior, but the bulk of the circle is rich rice-growing soil, as in the Andhar, which it much resembles.

Shah Nahri circle.

						Rs.	
Old demand	•••	• • 1	***	111	***	27,158	
Proposed	•••	• • •	•••	***		31,118	
Sanctioned	***		•••	•••	••		
Imposed	***	•••	***	•••	•••	80,697	
Іпстеаве	•••	•••	•••	•••	• •		cent.
						Rs. A. P.	
Rate per acre Ditt	cultivated -		***	•••	•••	1 13 5	
Ditt	cropped		***	***	***	1 9 6	

This is a poor circle outside the Bari Doab irrigation: the soil is generally shah Nahri.

Shah Nahri.

been made for all drawbacks, however, and the assessment cannot certainly be described as high.

Kandi circle.

					Rs.
Old demand	•••	•••	•••	•••	49.049
Proposed	•••		•••	•••	52,835
Sanctioned	•••	•••	***	•••	50,000
Imposed Increase	•••	•••	***	***	••• 5 0, 64 0
	•••	***	***	•••	3 per cent.
					Rs. A. P.
Rate per acre o		•••	***	•••	1 12 7
	cropped	•••	•••	•••	1 14 5

The revenue at last settlement was raised by 31 per cent., and, as the Financial Commissioner remarked, "it is difficult to avoid the conclusion that the assessment was heavy." With the very small increase now taken, the demand is fair enough.

Pahari circle.

					Rs.
Old demand	***	•••	•••	***	33,499
Proposed	***	• • •	•••	***	34,180
Sanctioned	•••		•••	***	33,500
Imposed	• • •	•••	•••	***	33,524
Increase	• • •	***	***	•••	Ni^{j} .
	_				Rs. A. P.
Rate per acre	_	•••	•••	•••	1 3 7
Ditto	cropped	•••	100	•••	1 6 4

The figures above exclude the special assessment in the hill station of Dalhousie which was raised from Rs. 1,184 to Rs. 1,213.

No enhancement was sanctioned in this depressed and declining circle, but considerable re-adjustment of the demand in individual villages and tikas was found necessary. At last settlement the revenue was announced by villages and the distribution among tikas was effected as an internal backh. This led to inequality of treatment, and I have now fixed the demand of each tika myself, a course which met with the unanimous approval of the people. I think the ineidence is now a very fair one.

The rates sanctioned for each class of soil in each circle are shewn below:—

					Soil.			
CIROLH		Chahi.	Nahri.	Nahri- zamindari and abi.	Sailab.	Barani I.	Barani II.	Barani III.
		Rs. A. P.	Rs. A. P.	THE RESERVE OF THE PARTY OF	Rs A. P.	Rs. A. P	Rs. A. P.	Rs. A. P.
Andhar	•••	4 8 0	•••	3 8 0	1 12 0	200	•••	e ***
Bet Ravi	4	4 8 0	***	3 4 0	2 0 0	2 0 0	***	
l'athanti		4 8 0	2 8 0	3 8 0	200	200	***	•••
Shah Nahri		4 8 0	2 2 0	3 0 0	1 12 0	1 10 0	***	•••
Kandi		4 8 0	2 8 0	2 12 0	1 12 0	2 0 0	1 5 0	
Pahari				3 0 0		1 12 0	1 0 0	0 8 0

48. Over the whole district the revenue was thus raised from Rs 15,28,130 to Rs. 18,55,346 or by 214 per cent. The forecast of an increase of 19 per cent. made by the Financial Commissioner in 1906 was a remarkably accurate one, though it under-estimated the rise in Shakargarh and over-estimated the possible enhancement in Pathankot.

CHAPTER V.—DISTRIBUTION OF THE REVENUE.

49. In the last resort, the success or failure of an assessment must developed upon the eare with which the new demand is distributed not only over estates but over holdings. The entire community is banded together in an attempt to hoodwink the Settlement Officer whose visit to each village on his assessment inspection calls forth an appalling amount of lying—no milder term is applicable. The work is thus peculiarly difficult and unsatisfactory.

The village inspections of the enormous number of estates of the district and the writing-up of the inspection note-stook up a great deal of time

and were extremely laborious. The small size of so many of the villages tends rather to increase than to diminish the labour involved: large estates of homogeneous character can be disposed of more rapidly than the small villages of this district which contain several different qualities of soil: the people also are never satisfied that they are receiving fair treatment unless the whole ground is ridden over. In large villages, moreover, a difference of Rs. 50 or even Rs. 100 more or less in the assessment will often be a matter of little importance, but in small estates the demand requires very careful adjustment, since the addition or subtraction of as little as Rs. 20 may make all the difference between a fair or an unfair assessment. In the numerous irrigated villages of the district the source and constancy of the irrigation had to be closely scrutinised in the records as well as on the ground. Insufficiency of canal supply and inefficacy of wells are almost universal complaints at village inspections, and an opinion on these points had to be reached and recorded. In many villages, especially among the simple-minded people of the more remote parts of the Shakargarh and Pathankot tahsils, the old device was frequently employed of throwing land out of cultivation for a year or two prior to measurements: transparent as this device may appear to be, its prevalence called for constant reference to the area recorded as cultivated in previous years, and enquiry into the question whether the decrease in cultivation was real or fictitious.

50. Detailed instructions were issued to tahsils for the preparation of bachh files as soon as the measurements of each village were completed. As each village came up for its assessment to be announced, the bachh file was put up, the people questioned as to the method of distribution which they preferred, and all disputed points were then settled. Naib Tahsildars were directed to hear and report all objections that were raised after the assessment of individual holdings had been worked out and announced: there were only a few of these, but all were carefully gone into and orders passed by myself. I have some confidence that, with few exceptions, the people are fully satisfied with the way in which the demand has been distributed. The following table shows the respective popularity of the different methods of distribution at this and the preceding settlement: the figures for the latter are shewn in antique:—

					WAS DISTRIBUTED BY					
		Taesil.			Hereditary or customary shares (including samindari bilijmal).	An all-round rate.	Differential soil			
Batala				***	{ 92 28	262 101	141 366			
iurdaapur	•••		4+*	•••	299 141 486	298 322	102			
hakargarh	•••	•••	***	•••	486 201	243 125	17			
athanl ot	•••		•••	•••	261	103 101	58			
		District		••	1,138	906 649	17 420 58 145 318 1,167			

Note. -- Excludes three estates ewned by Government in Pathankot tabell.

The figures for last settlement differ considerably from those given in paragraphs 64, 66, 69 and 72 of the Final Settlement Report which appear to be wrong.

In the preliminary report I anticipated that there would be considerable demand for distribution by differential soil rates, and the expectation has been amply borne out, the increase under this head being very marked. It is also a tribute to the people's confidence in the fairness of our soil classification. After the distribution by holdings had been announced, there were a very few complaints that the soils were wrongly classified and in two instances only did I admit the validity of this plea. The advantages of a distribution by soils were explained to the people by the Tahsildar. In Batala the zamindars had

welcomed the new soil classification largely because it enabled them to have the internal distribution which they favoured. In Shakargarh it is creditable to the late Lala Sham Das, the Tahsildar, that he was able to persuade the conservative people of that backward tract that a bachh by soils was the fairest method of distribution. Unless the shares are actually equal, the share-holders few in number and alienations unimportant, distribution by shares is not a very satisfactory method, and the people have shewn their appreciation of the fact by largely abandoning this form of bachh; where this or a single all-round rate has been retained it is often because it saves the patwari trouble, and that functionary has had sufficient influence with the owners to get his own way.

The most convenient manner of assessing well irrigation is by treat-51. ing the land irrigated as barani and impos-Well abiana. ing abiana by placing a lump sum on the well: this facilitates the bachh and makes remission easy, should the well fall out of use. I endeavoured to induce the people to adopt this method, but with In general they preferred to put the abiana on the land by statlittle success. ing the proportionate incidence which each class of soil should bear, such, for instance, as chahi 3, barani I 2, and barani II 1. They did not favour any system by which wells could be classified according to their capacity for irrigation, and I abandoned the endeavour to carry out any such classification when I found that it led to the engendering of ill-will among the owners.

Of the 417 canal-irrigated villages in the district, 275, or practically two-thirds of the whole number, Bachh on mahri lands. made no distinction in the bachh between nahri and barani: in part this was due to the conviction that the obligation of paying occupiers' rates for canal water constituted a sufficient extra assessment of canal lands, but often the people stated that the nahri was so equally shared amongst them that it was unnecessary to differentiate in the bachh. Where a distinction was made the most usual course adopted was a proportionate incidence, generally five shares on nahri and four on barani or three shares on nahri and two on barani.

Miscellaneous matters connected with the backh-(a) Progressive assessments.

	Tah	Rupces.		
Batala		***		9,425
Gurdaspur	•••	•••		6,795
Shakargarh		•••	,,,	250
Pathankot	•••	••ŋ		390
		Total		15,860

The heavy enhancements taken in Batala and Gurdaspur were not due to any increase in cultivation. and it was therefore necessary to miti. gate the hardship of a sudden rise by resort to progressive assessments. Where the existing revenue demand in any one village was increased by more than 33 per cent.; the amount exceeding that percentage was deferred for 5 years. The total so deferred in each tahsil is shewn in the margin.

Remission of assessment was also granted on account of new wells in accordance with the rules stated in (b) Protective leases on wells. the Settlement paragraph 505 \mathbf{of}

Manual. The period of exemption from payment of the full irrigated rate was 20 years, except in the Bharrari circle of the Shakargarh tahsil, where the period sanctioned was 40 years. In the Darp of Shakargarh and in parts of Gurdaspur where wells are common, but are only used spasmodically, the people frequently insisted that chahi should be assessed in the bachh at th same rate as barani: in such cases it was explained to them that they could not obtain the benefit of protective leases or of remission of abiana, should a well fall out of use. Even when they recognised the force of the argument, they usually placed a very small amount of abiana on each well. Thus the sum remitted on account of protective leases in these tahsils is comparatively

	Tahsil	Rupees.	
Batala Gurdaspur Shakargarh Pathankot	•••		 11,810 4,667 1,706 76
		district	 18,259

small. The amounts remitted in the first year of the new assessment in each tahsil are shewn in the margin.

- 55. The general rules relating to the remission of abiana on wells falling out of use. Falling out of use, which are given in paragraph 558 of the Land Administration Manual, apply to this district, and it is to be hoped that the necessity for granting such remissions will not be overlooked after settlement. The rules, translated into the vernacular, have been printed on the back of all protective leases granted during settlement, and have thus been given wide publication throughout the district.
- 56. Remissions on account of damage caused by roadside trees have (c) Remission on account of damage caused by road been granted in accordance with the rules given in paragraph 513 of the Settlement Manual. Land so affected has been treated as not liable to assessment: in a few cases only was it necessary to allow for such injury in fixing the total assessment of the estate: in other cases the petty sums remitted have been spread over the rest of the land in the village.
- 57. As explained in paragraph 52 of the Pathankot Assessment Report, no special assessment has been imposed on the water-mills of the Andhar, Pathanti, Kandi and Pahari eireles of that tahsil, but account of any profits made on them was taken in fixing the village assessment. In several cases the people have decided to place a definite sum in the bachh on these mills, especially when they belong, as often happens, to money-lenders and others outside the original proprietary body. The mills on the new Mogali kuhl referred to in the above-noted paragraph of the Pathankot report have been exempted from special assessment by the orders passed in Punjab Government letter No. 112 Rev, dated 10th July 1912. In all cases I had myself to fix the amount which each mill should pay in the bachh: the mill-owners usually strenuously opposed the desire of the original proprietors to assess their mills, and the latter almost invariably rated the mills too highly.

CHAPTER VI.-MISCELLANEOUS.

- 58. The gross increase in the land revenue amounts to Rs. 3,27,216, and the total cost of settlement, as is explained below, Rs. 6,97,714 if the new assessments had been announced in all the talsils at the same time, the cost would therefore be recovered in a little over two years. Allowing, on the one hand, for deferred assessments and protective leases on wells and, on the other, for the fact that the new demand in Batala and Gurdaspur took effect from kharif 1910, the cost will have been more than recovered by the kharif of 1913 or little more than a year after the close of settlement operations. I trust that Government will consider this to be a satisfactory result.
- The forecast report estimated the cost of settlement operations at Rs. 9,15,182; when the settlement had been in progress for a year, however, I submitted a fresh estimate for Rs. 7,14,976, anticipating that I could save roughly 2 lakhs. The actual cost amounts to Rs 6,97,714. Although my forecast has proved approximately accurate, the cost of settlement operations would have been considerably less, but for causes over which I had no control. The first and most expensive cause was the necessity placed upon me of finding places for establishment which could not be provided for elsewhere. Operations which had started in Amritrar were temporarily closed down and no new

At a time therefore when I was hopeful of reducing, settlements were started. my staff was augmented by a number of senior substantive kanungos and Naib Tahsildars: all my temporary and sub. pro tem. men, many of them with several years' service, had to be reduced, and great hardship to these men and disorganisation of work was caused. For the remainder of the settlement I was well above seale in my 1st grade kanungos. The block in the Naib Tahsildar and kanungo staff was extraordinary and continued throughout the whole One 1st grade Tahsildar on leave for two years was posted pro forma to this settlement, drawing leave pay and allowances amounting to nearly Rs. 3,000. In the eircumstances this eongestion of settlement staff was of course inevitable, and it was unfortunate that, as matters stood, most of the resulting inconvenience should have had to be borne by this settlement. Of other expenditure not strictly chargeable as east of settlement operations, I may mention such items as the pay and travelling allowance of Assistant Commissioners under training, Rs. 23,611, the reward to Mr. Emerson for passing the high proficiency examination in Urdu, Rs. 1,000, and the expense of the special Dalhousie survey, Rs. 8,534.

Proposals for the recovery of Rs. 12,068 from jagirdars as their share of the cost of settlement operations have been submitted.

60. The examination of the very numerous and often complicated revenue-free grants of the district has been extraordinarily long and laborious.

The registers of last settlement were incomplete and unreliable and had to be discarded: new registers in vernacular for the tahsils and in English for the district office', modelled to a great extent on the admirable registers of the Karnal-Ambala settlement, have now been prepared; a full history of each grant, with references and, where requisite, a genealogical tree, have been given and provision has been made for the entering-up of all changes which may subsequently take place. All files and registers of every kind relating to assignments have been overhauled, rebound, where necessary, arranged, numbered, and indexed: copies of important papers which were wanting in the district office have also been taken from the Financial Commissioners' office records, and I believe that full information on all matters relating to this subject is now easily available for the use of the Deputy Commissioner. If the registers could be kept up to date, as intended, much trouble would be saved, not only between settlements, but also at the next settlement, in tracing the origin and history of grants and determining claims and successions.

The total value of assignments at different periods is as under: -

Year.		-	Rs.
1852	•••		4,56,714
1865	•••	***	2,80,378
1891	•••		1,39,737
Prior to settlement		•••	1.04.642
By new assessment	•••	•••	1,13,057

The last three items include the amounts paid out of *Khalsa* revenue on account of *zaildari* and other personal *inams*, the true assigned revenue at the last and the present settlements being Rs. 1,12,502 and Rs. 84,959, respectively. The grants investigated and their value are grouped together under convenient heads in the table below:—

TAHSIL.		IN PERPETUITY, IN- CLUDING GRANTS FOR THE UP-KEUP OF INSTITUTIONS AND DURING THE PLBASURE OF GOVERNMENT.		FOR LIFE OR LIVES.		FOR THE TERM OF SETTLEMENT.		OTHERS.		Total.	
		Number.	Value.	Num- ber.	Value.	Num- ber.	Value.	Num- ber,	Valu e.	Num- ber.	Value.
Batala Gurdaspur Shakargarh Pathankot	***	203 285 111 144	Rs. 34,405 23,042 3,841 9,759	48 63 43 27	Rs. 1,485 5,586 1,478 968	100 34 196 39	Rs. 1,372 175 1,074 1,480	1 3 2 6	Re. 9 123 13 149	352 385 352 216	Rs. 37,271 28,926 6,406 12,356
District		743	71,047	181	9,517	369	4,101	12	294	1,305	81,959

In addition to the 1,305 grants continued, 326 were resumed; 860 other cases relating to assignments, mainly succession cases, were also dealt with; making a total of 2,491 files disposed of during settlement.

- of the Dalhousie Government forests (1,335 acres) have now been placed on a proper footing and a settlement effected. The Balun forests (1,011 acres) are under Military management. The so-called Shahpur-Kandifforests are divided into demarcated (2,339 acres) and undemarcated (5,099 acres), which comprises nearly all the common land of the 17 villages in the tract. The management of these was transferred in 1910 to the Deputy Commissioner who administers them in the interests of the villages with due regard to the preservation of the forests. The surplus of income over expenditure is expended on the forests or made over to the right-holders.
- 62. A draft of new di-alluvion rules has been separately submitted.

 The general lines of these are the same as those of the existing rules, but a few amendments have been made and the rules redrafted so as to obtain greater simplicity and clearness. Provision has been made for the remission of assessment after four years on lands thrown up and cultivated, but again abandoned as unprofitable: also for the treatment of riverain areas in connection with the rules, recently applied to this district, for keeping village maps up to date between settlements.
- 63. A scheme for suspensions and remissions has also been submitted for sanction. Registers showing the normal rate for each harvest in every village and the danger rate for all insecure villages with a brief note on each have been prepared for the use of the Deputy Commissioner. To each register has been prefixed a note on the special characteristics of each circle with especial reference to the need for suspensions and remissions and the ease or difficulty with which recoveries of suspended revenue can be made.
- 64. The existing Riwaj-i-am, which was not a very satisfactory compliance.

 Riwaj-i-am.

 pilation, has been completely revised, amplified and re-arranged. Civil cases dealing with points of custom, whether decided by the Chief Court or subordinate courts, and the records of undisputed mutations on the same subject have been examined and the results incorporated in the new volume. These form a valuable supplement to and commentary on the replies of the various tribes to the questions on points of custom upon which their testimony has been taken. This work was entrusted to Sheikh Rahim Bakhsh, Extra Assistant Settlement Officer.

Dastur-ul-amal.

65. A Dastur-ul-amal or Manual for the use of subordinate Revenue Officers has also been drawn up.

66. There are 426 patwaris, 55 assistant patwaris and 17 field kanungos in the district, with a sadr establishment of one district kanungo, one assistant and two inspection muharrirs.

A separate report on the *patwari* and *kanungo* agency has been submitted: the addition of 12 extra *patwaris* has been recommended; the existing rates of pay to be maintained, but a special allowance of Rs. 2 per mensem to be allotted to *patwaris* and assistant *patwaris* in riverain, *chambh* and hill circles.

The addition of one field kanungo for each tahsil has been proposed, and of one extra *muharrir* for the sadr kanungo's office: the latter's primary duty will be to keep the abstract village note-books correct and up to date.

In paragraph 67 of the last settlement Report the Settlement Officer

Lambardars. Number of village. Last Tahsil. settiement. 495 Batala 1,151 1,060 Gurdaspur 1,249 699 1,393 Sliakargarh 1,088 746 1,148 ٠.. Pathankot 4,628 423 656 025 2,865 District 4,348

remarked on the portentous number of lambardars in the district. The number of these at last settlement and now is shewn in the margin. Registers containing proposals for the reduction of superfluous posts were sent up for sanction in 1896-97, but it was eventually decided in Financial Commissioner's letter No. 7115, dated 24th December 1897, conveying orders on the Batala tadsil registers, that each case should be reconsidered on its merits on the occurrence of a vacancy. The Financial Commissioner, Mr. Thorburn, whose ob-

servations have since been ruled to be applicable to all the proposals then made, remarked:—"We should not prejudge a mass of cases on the improbable assumption that what is to-day will be the case an indefinite number of years henec...... As the office of lambardar is usually hereditary, has always been created after struggle and consideration, and is prized as an honourable distinction rather than as a means for adding a few rupees to the family income, no family should be immediately or prospectively deprived of the office,.....the rule should be to consider the merits of each case when the vacancy occurs." These registers have been very useful in dealing with the numerous reductions which, as shewn above, have been effected during the past 15 years. I have now re-examined the *lambardaris* in every village, re-east the registers and, following the principles laid down by Mr. Thorburn, have recorded a note upon each ease where reduction would probably be desirable. These will be utilised, as occasion arises, in accordance with the instructions given in paragraph 330 of the Land Administration Manual.

Ala lambardars.

1	Sabsil.		Last settle- ment.	Now.				
Batala	,,,		516	163				
Gurdaspur	,,,		702	114				
Shakargarh	***		747	208				
Pathankot	***		170	27				
Di	strict		2,135	512				

It was explained in paragraph 77 of the last Settlement Report that recommendations had been made for the extinction of the post of ala lambardari except in one or two large and important estates and where there were three or more headmen. The number of ala lambardars at last settlement and now is shown in the margin. It has now been finally decided to abolish the post altogether as vacancies occur (Punjab Government letter No. 233 S., dated 1st June 1909) and to appropriate the sum of Rs. 7,500 from the amount of the lapsed ala lambardari inams in the payment of regular

The ala lambardar had been amply proved to be a inamdars or sufedposhes. superfluous and useless institution, but the inamdar, as an under-study of and assistant to the zaildar, can give much help in the administration.

In pursuance of a scheme framed by the last Settlement Officer **69**. and revised by Mr. (now Sir James) Inamdars. Douie, in 1898, for the utilisation of lapsed ala lambardari inams, a number of zamindari inams, amounting to 118 in the whole district, have been constituted, and the scheme contemplates the eventual creation of 150 posts in three grades paid at the rates of Rs. 70, Rs. 55 and Rs. 40, respectively. On the ground that this number is excessive and the remuneration too small, proposals have been sent up in my letter No. 513, dated 13th August 1912, for the reduction of the number of posts to 72, and the raising of the emoluments to Rs. 100 and Rs. 80.

70. There are 59 zaildars in the district, paid by a drawback of one

Tahsil.	Number.
0-4-1-	

Zaildars.

Batala 15 Gurdaspur 18 Shakargarh 16 Pathankot 10 District

per cent. on the total revenue of their zails. In the above-quoted letter I have recommended maintenance of the existing system of remunerating zaildars, the addition of one new zaildar in the Shakargarh tahsil and a few adjustments in the boundaries of zails. In case it is desired to introduce a graded system, with fixed pay for each grade, in place of the grant of a percentage on the revenue, I have proposed, in the alternative, the following grading:-

1st class	•••	
2nd class	•••	•••
3rd class	•••	

15 30 15	@ @ @	Rs. 400 300 225	Rs. = 6,000 = 9,000 = 3,875
	To	tal	18,375

Forty-one officials and candidates of superior grades, as noted in the 71. Training of officials.

Assistant Commissioners .. Probationary Extra Assistant Commissioners 6
Munsif candidates 4
Wazir Wazarat candidate ... 1 Naib Tahsildar candidates ... Tahsildar candidates 16 16 margin, received training in the settlement, in addition to numerous kanungo candidates. The orders requiring special personal attention to their training involved no little increase in the Settlement Officer's work. Their pay moreover was a charge upon the settlement

budget and added appreciably to the cost shewn.

The dates on which the instalments of revenue are to be paid have been fixed as under :-Instalments.

> Kharif,-between December 15th and February 15th in all tabsils.

> Rabi, - June 20th in all tabsils, except in the Pahari circle of Pathankot, where the date has been put back to July 10th, on account of the lateness of harvesting operations in the hill tract.

In Dalhousie, for the convenience of estate owners, the revenue is payable in equal instalments on June 15th and October 15th of each year. The only change made since last settlement is the extension of the rabi date in the Pahari circle of the Pathankot tahsil. As regards the kharif instalment, it has been arranged that the revenue shall be paid in by groups of zails on a fixed date allotted to each group between December 15th and February 15th. This suits the convenience of the people and obviates that rush on the treasury which the system of having a single date for the whole tahsil so often produces. The dates have been fixed with regard to the wishes of the people and the ripening of the main crop of each group of zails.

The fraction of the annual demand payable after each harvest is generally one-half in the kharif and one-half in the rabi. I give a table similar to that at paragraph 85 of the last Settlement Report:-

NUMBER OF VI	LLAGE PAYING	Batala.	Gurdaspar.	Shakargarh.	Pathankot.	Total.
In kharif.	In rabi.		·			20041.
1 8 2	$\frac{1}{2}$	494	698	745	248	2,185
335	3 2 5			1	57	59
အွယ်စု[4ကျစ	1			***	112	112
i i	(4 න(ග නැත				1	1
2	3	1.1			2	2
	Total	495	699	746	420	2,360

In Pathankot the three Government estates of Nahr-ki-Bir, Balun and Bakloh pay no assessment. Little change has been desired by the people. In Pathankot the great predominance of the rice harvest accounts for the larger proportion which the revenue-payers prefer to pay in the *kharif*.

73. Owing to the reduction of the local rate and the remission of the patwar cess since last settlement, cesses will now only be levied at their present rates, as under:—

Rs. A. P.

Lambardari ... 5 0 0 per cent.

Local rate ... 8 5 4 ,, ,,

Ala lambardars are remunerated partly out of revenue and partly by a special cess of 1 per cent. on the revenue; the latter is to be abolished as ala lambardaris lapse, as explained in paragraph 68 above.

74. The term of the expired settlement was 20 years and ordinarily that of the new settlement would be the same. There is no reason for lessening this period, and the only alternative would be 30 years: it is for Government to decide whether the longer or the shorter term is the more suitable. In favour of the 30 years' settlement I may quote Mr. Kitchin (paragraph 50 of his Final Settlement Report of Rawalpindi):—

"I am of opinion that settlements give so much trouble to the people, are so great an expense to them, and have so disturbing an effect upon them that the term of a settlement should be made longer. There must come a time when constant increases of revenue, however justifiable on statistical grounds, will become an economic impossibility in view of the continued sub-division of the soil and of the gradual disappearance alike of the leisured agricultural classes and of the original peasant proprietary body. There must be some point where enhanced revenue demands must stop, and it is better to postpone than to hasten our arrival at that point."

Since these words were written a policy has been evolved by which the expense and harassment of the people caused by a settlement should be greatly reduced; the rules aiming at the up-keep of revenue records in a more complete and up-to-date form than has hitherto been the case have been applied to this district, and, if they work successfully, it might be possible, not withstanding the somewhat peculiar nature of the maps, to which I have alluded in paragraphs 14 and 17 above, to conduct a re-assessment without a special revision of the record. Re-assessment alone would still occupy a single Settlement Officer some three years at least, if he were to carry out a proper inspection of each village on the present lines, but the trouble caused to the people would be insignificant. The district is undoubtedly still lightly assessed, especially in the ease of the Batala and Gurdaspur tahsils: in Pathankot, and to a lesser degree in Shakargarh, the assessment is fuller and the condition of these two tabsils is not such as to justify any prediction that their revenue could be materially enhanced in 20 years' time, unless, as may be the case, the railway is carried into the Shakargarh tahsil. The sub-division of holdings, so noticeable in Shakargarh, may not, in view of plague and emigration, proceed at any great pace. I am of opinion, therefore, that no departure from the ordinary rule, under which the term of settlement should be sanctioned for 20 years, is called for: at the end of that time, it will be open to Government to extend the period should circumstances then render this caus e advisable, as may well happen in the case of the Pathankot tahsil, but I see nor eason why Government should now give up its right to take a further enhancement after 20 years and should bind itself down to a 30ye ars' term. I recommend therefore that the settlement of the whole district be sanctioned for a period of 20 years.

- 75. I note briefly below some points in the revenue administration of the district to which the attention of Deputy Commissioners should be especially directed:—
 - (1) The weakest revenue-paying tracts are the Bharrari of Shakargarh and the Pahari of Pathankot. These have been noted in the scheme for suspensions and remissions (paragraph 63 above).
 - (2) The fluctuating *chambh* assessments (paragraph 65 of the Gurdaspur Assessment Report). Care is needed to see that sufficient allowance is made for failed crops: 1 have drawn up some instructions for patwaris in these villages.
 - (3) The Ravi above Dera Nanak needs constant watching, and the stability of the embankment built a few years ago should be the especial care of the District Engineer (paragraph 7 of the Batala Assessment Report).
 - (4) The main drains, such as those running along the Kalanaur road and through the Bucha Nangal and Kahnuwan swamps, should be periodically cleared: this has not been the case in recent years.
 - (5) Canal water should be given by due date—the 15th March, and this has sometimes to be represented to the Irrigation Department: the last watering in October is also important for the rice crop, and similar action is occasionally needed to ensure that it is duly given.
 - (6) The working of the new rules for the Badshahi Canal in Pathankot should receive attention, and any disputes over irrigation in the Chak Andhar—and indeed over any of the Pathankot kuhls—should be dealt with promptly (paragraph 11 of the Pathankot Assessment Report).
 - (7) Map correction under the new rules will need close supervision.

 As to the records, mutation work is bound to fall into arrears unless special measures are taken to keep them up to date (paragraph 27 above).
 - (8) Abiana should be remitted on wells falling out of use: this is a provision which is frequently overlooked. Remission of nahri parta may also be occasionally called for (paragraphs 55 and 43 above).
 - (9) The new muast registers and the abstract village note-books require to be kept up to date (paragraphs 60 and 23 above).
 - 10) Well-boring operations have not been very successful owing to the apathy of the zamindars. There is some scope for improvement in existing wells, especially in the Darp of Shakargarh, but I doubt if the facilities offered will be made much use of for the purpose of digging new wells.
 - (11) The formation of ravines in the Bharrari of Shakargarh is proceeding with unpleasant rapidity: some attempt might be made to induce the people to contract this tendency by the creetion of small embankments at threatened points. I have proposed remission of assessment for land falling into ravines in connection with the di-alluvion rules.
 - (12) The circumvention of the provisions of the Land Alienation Act by means of fictitious mortgages has already led to the posting of two Naib Tahsildars on special duty to revise mutations in the Shakargarh tahsil, and this matter will always need the attention of the tahsil authorities.
 - (13) The management of the so-called Shahpur Kandi forests in the Pahari circle of Pathankot has so far been acquiesced in by the people, and it is to be hoped that the rules will continue to work smoothly (paragraph 61 above),

76. Mr. Craik was Assistant Settlement Officer for a year and carried out the re-assessment of the Batala tahsil: his report on his work has already

received the commendation of Government, and I need only observe that without his assistance I could not have completed the exceptionally heavy task of re-assessing the 2,363 villages of the district within the period of five years which were allotted for the settlement.

Mr. Emerson was attached to the settlement, also as Assistant Settlement Officer, for a year: he gave me some assistance in village inspection in the Shakargarh Darp, but his duties were chiefly miscellaneous, including the revision of a large number of muafis and reporting on the delimitation of the boundary between this and the Hoshiarpur district. He also acted as Settlement Officer for 6 months in the summer of 1910 when I was on leave. His help was invaluable to me, coming as it did at a time of particular stress, and I cannot speak too highly of the quality of his work.

Mr. R. C. Singha was Extra Assistant Settlement Officer up to January 10th, 1910, when, by the peculiar fatality which has marked this settlement no less than last, he succumbed to a sudden attack of cerebral hemorrhage causing paralysis. His industry and integrity were of so high an order that his family was granted a special gratuity of Rs. 2,500 by Government.

Sheikh Rahim Bakhsh then became Extra Assistant Settlement Officer, and gathered up the broken threads with remarkable rapidity and ability. He filled the post with the greatest credit, and I owe him my special acknowledgments for much hard and loyal work. Both he and Mr. Singha managed the large staff with conspicuous tact and success.

The Tahsildars were L. Lachman Das in Batala, Lala Brij Lal in Batala and Pathankot, Sheikh Shahab-ud-din in Gurdaspur, L. Mukand Ram in Gurdaspur, L. Sham Das in Shakargarh, and P. Ram Chandra Dobey in Pathankot. Of these I single out the following:—

- L. Sham Das was quite the best Tahsildar I had: thoroughly experienced, accurate and painstaking to a degree which was sometimes apt—to—cause—daily, and exceedingly popular with the staff, he was much missed when he died suddenly on 5th November 1911 when on casual leave—at—his home in Multan; he had however nearly finished his work in Shakargarh, and thence forward I carried on with Naib Tahsildars only. Sheikh Shahab-ud-din held charge of the difficult Gurdaspur tahsil throughout the settlement: for a year he shared the tahsil with L. Mukand Ram; he acquitted himself most creditably and his experience was especially valuable.
- P. Ram Chandra Dobey was certainly the ablest of my Tahsildars, although he was the least experienced: he did good work before his transfer in 1909 to the Kashmir State for settlement work in Jammu.

Of the Naib Tahsildars, the following deserve special commendation:

Tahsil Batala,—M. Ram Labhaya, M. Ganda Mal and M. Mahtab Singh. The first named was soon removed to the Loharu settlement, and the two latter did very well as in-charge Tahsildars during the distribution of revenue and the closing operations in this tahsil.

Tahsil Gurdaspur,—L. Daulat Ram, who has unfortunately since died while acting as Assistant Settlement Officer in the Mandi State settlement, and P. Maharaj Kishan, a man of good family and eminently trustworthy in work and character.

Tahsil Shakargarh,—L. Nihai Chand and L. Pala Ram, who worked with credit throughout the settlement in this tahsil.

Tahsil Pathankot,—B. Ram Singh, L. Mulk Raj and M. Ghulam Hussain, all of whon did conspicuously well in the field.

In addition to the above, I have especially to aknowledge the services of M. Amrit Rai, Naib Tahsildar, whose industry and capacity were of the greatest assistance to me in the troublesome and intricate work connected with the determination of boundaries in connection with the riverain survey.

L. Jai Narain, whose transfer to the Mandot Canals, deprived me of the services of a first class Head Clerk.

L. Mohan Lal (a grandson of the late Honrary Assistant Commissioner Rai Bahadur Gopal Das of Lahore), who did well as a Naib Tahsildar in the field and has subsequently been most useful as my Reader. L. Mohan Lal has been at pains to acquaint himself with settlement work in all its branches and has acquired a considerable grasp of the details of assessment work which the ordinary Settlement Naib Tahsildar does not trouble himself to attain.

There remain the numerous kanungos, patwaris, and office hands whose individual services must unfortunately remain in obscurity: to these I would add the various non-officials, zaildars, sufedposhes and others who have in many ways assisted in settlement work: so far as possible their efforts have been rewarded by such promotion and commendation as it has been in my power to bestow; for the rest I here make acknowledgment of the debt which every Settlement Officer must owe to the labours of those upon whom the successful completion of a settlement must in the last resort depend.

77. Orders are only required as regards the term of settlement (paragraph 74).

बन्धपैन नगन

F. W. KENNAWAY,

Settlement Officer, Gurdaspur.

The 14th September 1912.

APPENDICES.

APPENDIX I.

Statement showing by takeils the population, area and revenue of the Gurdaspur district.

12			Вридака.			The Dhain Bet Beas circle of this tahail inchades Sy villages under flooresting.	sessment. The average demand, Rs. 6,591, has been entraid and taken into account in working out the incidence.	*Excludes Re. 1,184 old demand and Re. 1,213 new demand of Dal-housie	
82		cidence re).	Cropped.	.s. A. P.	6.1 70 00	2 2 10	1 16 7	1 12 8	2 1 10
22	is).	Rate of incidence (per acre).	Caltiyated.	3. A. P. Rs.	φ φ	0 0	1 14 10	8 0 3	0
77	IN RUPE		Increase per cent.	Bs. Rs.	28		- 11	σ	12
	Beverur (ir rupers).		усм дешвид.	R8.	6,13,785	5,66,138	4,28,432	*2,55,778	18,54,133
22			Previous year's demand.	sê A	4,77,612	4,48,414	3,66,362	*2,36,568	*15,26,946 *18,54,133
ផ	E OF		Failed.		12,876	19,269	35,786	27,062	84,983
 8	TOTAL AVERAGE OF CROPS (IN ACRES).		Maturod.		260,841	255,546	216,888	142,836	876,111
- 61	TOTAL		, nwo8		273,717	274,815 255,546	252,674	159,888	824,202 961,094 876,111
18			Total cultivated area.	ATHEREN,	241,037	234,281	222,095	126,789	824,202
17			Total.		105,728	180,776	209,659	91,094	587,287
16			Barani III.		30.7		20,780	2,812	23,592
15		gated.	Baraul II.		48,272	52,543	53,058	33,663	270,406 185,535
		Unirrigated.	Daren I.	18. N	50,300	85,809	192,361	44,936	270,406
13	ACRES).		Chambh sailab.	tha ta	116	11,470	ŧ	:	11,985
	CULTIVATED AREA (IN ACRES).		River sailab.		6,641	30,854	46,430	11,684	95,769
#	IVATED 4		Total.		135,308	53,505	12,406	35,695	236,915
10	Curl		•id&		2,037	874	168	Included in nahri- zamin- dari-	2,678
•		ted.	.itabaimer-indaX		1,257	1,236	ŧ	28,812	31,355
		Irrigated	Vahri.		29,350	24,086	:	6,493	59,029
-		-	Сһаһі-рарті.		4,551	2,396	I	:	6,947
9			Chabi.		98,114	25,262	12,240	330	136,006
10	VATED ICRES)	,	Arailable for eultivation.		26,859	34,955	24,879	33,009	224,606 119,702
4	UNCUESTIVATED AREA (IN ACRES)	'uo!	sviilno rol eldaliava toM		37,305	48,167	808,180	74,826	
673			.(8919h ni) sora latoT		305,201	317,403	311,282	234,624	1,168,510
69	(1181)	Çenene	of Salbrossa acidalage to		269,700	224,515	210,463	132,102	1226,771
1	Lahsill				Batala	Gardaspar	Shakargarh	Pathankot	Total of the dis-

APPENDIX II.

Statement showing total expenditure of re-settlement operations in the Gurdaspur settlement up to 30th September 1912.

	Budget headings.	Total expen	ditu	ıre.
-		Rs.	A.	Ρ.
Sa	ary and settlement allowance of gazetted officers	1,54,285	2	4,
	A Office Establishment.			
1.	Of Assistant Settlement Officer	350	0	0
2.	On fixed pay including English writing allowances of	4,431	1	. 9
3.	office kanungos	24,221	13	2
4.	Menial establishment	89,235	8	9
	Total office establishment	68,278	7	8
1	B Field Establishment.		-	
5	Settlement Tahsildars	37,854	3	11
6.	Settlement Naib Tahsildars	73,510	11	2
7.	Field kanungos including field allowance	1,37,095	13	71
	Total Field Establishment	2,48,460	13	0
8.	Temporary Establishment including chainmen	} 92,638	70	1
9.	Settlement allowances to district patwaris	5 02,000	1 %	
	Totai	92,638	12	1
10.	Travelling allowances of gazetted officers	16,194	2	3
11.	Travelling allowances of establishment	21,153	1	0
	Total	87,347	3	3
12.	Contingent expenditure except stationery and lithography.	73,862	2	5
13.	Lithography	2,189	9	5
14.	Stationery	14,504	10	8
	Total contingencies	90,056	6	6
15.	Dalhousie survey cost	8,534		
	GRAND TOTAL	6,99,600	12	10
in	uct on account of sale of old furniture, &c., refunded to treasury.	1,187	12	0
Ded	uct on account of price of stock transferred to other telements, but no money realized.	699	2	0
	Balance	6,97,713	14	10

APPENDIX III. Principal Gazette Notifications relating to the present settlement of the Gurdaspur district.

No.	Date.	Abstract.
522 AD	8th March 1907	Invests Babu R. C. Singha, Extra Assistant Commissioner, with the powers of— A.—Magistrato, 1st class. B.—Munsif, 1st class. C.—Collector, for the performance of the duties imposed by sections 25, 26, 28 and 32 of Act II of 1886. D.—Collector under the Land Administration Act I of 1894.
90 and 91	20th March 1907	Sanctions a general re-assessment of the land revenue of and a special revision of the record-of rights for the estates included in the Gurdaspur district.
1737	14th September 1907.	Confers on Mr. J. M. Dunnett all the powers of a Collector under Acts XVI and XVII of 1837, with the exception of chapter VI of the latter Act. Mr. Dunnett, in the exercise of these powers, not to be subject to the control of the Collector.
1906	8th October 1907	Appoints Babu R. C. Singha, Extra Assistant Commissioner, as Extra Assistant Settlement Officer, with effect from the forenoon of 1st October 1907.
183-A	lst February	Confers upon Mr. F. W. Kennaway the powers mentioned in notification No. 1737, dated 14th September 1907.
392 and 393	25th May 1908	Confers upon Mr. F. W. Kennaway all the powers of a Collector within the limits of the Hoshiarpur and Sialkot districts for the purpose only of defining the limits of such estates as adjoin the riverain boundary between these districts and the Gurdaspur district. Mr. Kennaway, in the exercise of these powers not to be subject to the control of the Collector.
1852 B	20th October 1908.	Invests Mr. H. D. Craik with the powers of a Magistrate, 1st class.
21 3 8 A	25th November 1908.	Confers upon Mr. H. D. Craik, Assistant Settlement Officer, all the powers of a Collector under Acts XVI and XVII of 1887 (with the exception of chapter VI of the latter Act). Mr. Craik in the exercise of these powers to be subject to the control of the Settlement Officer.
325	lst March 1909	Empowers Babu R. C. Singha, Extra Assistant Settlement Officer, and Assistant Collector, 1st grade, to hear and determine the suits mentioned in the 1st group in sub-section 3 of section 77 of Act XVI of 1887.
1379 D	3rd November 1909.	Confers upon Mr. H. W. Emerson, Assistant Settlement Officer, all the powers of a Collector under Acts XVI and XVII of 1887 (with the exception of Chapter VI of the latter Act). Mr. Emerson in the exercise of these powers to be subject to the control of the Settlement Officer.
1975	7th February 1910.	Invests Sheikh Rahim Bakhsh, Extra Assistant Commissioner, with the powers of a Collector under the Land Administration Act, I of 1894.
276	22nd February 1910.	Appoints Sheikh Rahim Bakhsh, Extra Assistant Commissioner, as Extra Assistant Settlement Officer.

No.	Date.	Abstract.
623 C.	9th April 1910	Confers on Mr. H. W. Emerson all the powers of a Collector under Acts XVI and XVII of 1887, with the exception of chapter VI of the latter Act. Mr. Emerson in the exercise of these powers not to be subject to the control of the Collector.
689	19th April 1910	Appoints Mr. H. W. Emerson as officiating Settlement Officer in place of Mr. Kennaway proceeding on 6 months' leave.
891	8th June 1910	Confers upon Mr. H. W. Emerson all the powers of a Collector within the limits of the Hoshiarpur district for the purpose only of defining the limits of such estates as adjoin the riverain boundary between that district and the Gurdaspur district. Mr. Emerson in the exercise of these powers not to be subject to the control of the Collector.
1222 C—E	15th October 1910.	Invests Mr. F. W. Kennaway, Settlement Officer, with the powers of— C.—Magistrate, 1st class. D.—Collector, under Acts XVI and XVII of 1887 (with the exception of chapter VI of the latter Act), Mr. Kennaway in the exercise of these powers not to be subject to the control of the Collector. E.—Collector within the limits of the Hoshiarpur district for the purpose only of defining the limits of such estates as adjoin the riverain boundary between that district and the Gurdaspur district. Mr. Kennaway in the exercise of these powers not to be subject to the control of the Collector.

सन्त्रमेव समन

APPENDIX IV.

GLOSSARY OF VERNACULAR TERMS USED IN THE FINAL SETTLEMENT REPORT.

		9ETTTER	MIL THE OWL.
	Vern	acular.	${\it English}$.
A bi	***	•••	Land irrigated by lift from tanks, marshes and streams.
Abiana	•••	•••	That portion of land revenue due to irrigation.
Ala lambar	dar	400	Chief headman.
Ala lambar	dari	***	Chief headmanship.
Bachh	•••	•••	Distribution of revenue over holdings.
Banjar Jad	lid	***	New fallow.
Banjar Ka	dim	•••	Old fallow.
Barani	444	***	Land dependent on rainfall.
Batai	•••	***	Division of produce.
Chahi	•••	•••	Land irrigated by wells.
Chahi-nahr	i	•••	Land irrigated partly by a well and partly by canal.
Chambh	***	***	A marsh.
Chambh sa	ilab	- An	Land affected by floods from marshes.
Chhir	•••		A water channel.
Dastur-ul-s	mal		A manual.
Dofasli			Land in which more than one crop is sown during the year.
Ekfasli	•••		Land in which only one crop is sown during the year.
Ghair-mun	akin		Unculturable.
Ghi	•••	••• है।	Clarified butter.
Girdawari	***	***	Harvest inspection.
Gur	•••	•••	Consolidated sugarcane juice or crude sugar.
Inam	***	•••	A cash allowance paid to a rural official.
Inamdar	•••	***	Holder of a cash allowance.
Jagir	•••	711	A large assignment of land revenue.
Jagirdar	***	***	The holder of a large assignment of land revenue.
Jamabandi	•••	•••	Annual record-of-rights of a village.
Kadam or I	Karm	***	A local measure of length.
Kanal	•••	***	A local measure of area.
Kanungo	•••	•••	A revenue officer over the patwari.
Khalsa	•••	•••	Revenue received by Government, not being assigned to grantees.
Kharif	•••	•••	The autumn harvest.
Khasra-gird	lawari	•••	A register of fields used in harvest inspections.
Khatauni	•••	•••	A holding slip.
Kikar	•••	•••	A tree (Acacia Arabica).
Kuhl	•••	***	A water channel.

Kut ·	•••		Poor soil cultivated once in two or three years.
Lakh	•••	•••	One hundred thousand.
Lambardar	***	•••	Village headman.
Lambarda	ri	•••	Village headmanship.
Maira	•••	•••	A loamy soil with an admixture of sand.
Maira Kha	1		The same, situated in valleys.
Maira Pala	.hi	•••	The same, situated on uplands.
Malikana		411	Payment made to a land-owner in recognition of his proprietary rights.
Misl Haqis	ıt	***	Record of rights.
Muafi	***		A small assignment of land revenue.
Muharrir	•••		A clerk.
Mujmili	•••	•••	A collective map.
Musavi	•••	•••	A survey sheet.
Naqsha H	akuk Chahat		A statement of rights in wells.
Nahri	•••	•••	Land irrigated from a canal.
Nahri-part	a	•••	Land revenue specially assessed on canal irrigation.
Nahri zam	indari	•••	Land irrigated from a private canal.
Pattidari	•••	•••	A form of tenure.
Patwari	•••	•••	The village accountant.
Rabi	***	•••	The spring harvest.
Riwaj-i-ab	pashi	•••	A statement of right's in irrigation,
Rohi	•••	•••	A loamy clay soil.
Rohi khal	***		The same, situated in valleys.
Rohi Palah	i	•••	The same, situated on uplands.
Sailab	117	•••	Land affected by floods from rivers
Shajra nas	b		A genealogical tree.
Shisham	•••	•••	A tree (Dalbergia sissu).
Sufedposh	***	•••	A local notable, equivalent to an inamdar.
Tahsil	1.4	•••	An administrative division of a district.
Tahsildar	•••	•••	Officer in charge of a tahsil.
Tika	•••	•••	A separate hamlet forming part of a village in the hills.
Wajib-ul-a	rz		A village administration paper.
Zabti	•••	•••	Customary cash rates taken on certain crops.
Zail	•••	•••	A group of villages.
Zaildar	***	•••	A rural official in charge of a group of villages.
Zaildari	•••	•••	Zaildarship.
Zamindar	•••	•••	An agriculturist.
Zamindari	***		Pertaining to a zamindar.

APPENDIX V.

SCHEME OF SUSPENSIONS AND REMISSIONS.

The abstract village note-books with the sadr kanungo contain detailed notes on villages. For the convenience of the Deputy Commissioner, in dealing with wholesale suspensions, separate registers for each tahsil have been drawn up showing the normal rate for each village and, in the case of insecure villages, a danger rate, varying from one and a half times to twice the normal rate, and a brief remark upon each such village. A general note has also been prefixed to each volume; estates which are ordinarily secure and in which suspensions should be needed only after two successive failures of harvest have been marked B, both in the registers and the abstract note-books: the normal and danger rates of each village have also been shown in the latter. The use of the normal and danger rates is, explained in paragraphs 563 and 575 of the Land Administration Manual. With the aid of the registers, and where necessary, of the more detailed information contained in the abstract note-books, the Deputy Commissioner should be able easily to deal with all applications for suspension. The following general remarks may be added.

- 2. The only really insecure tract in the district is the Bharrari of Shakargarh, but suspensions may be needed after a total failure of harvest in many of the villages of the Bangar of Batala, the Bangar, Maira Kiran and Dhaia Bet Beas of Gurdaspur, the Paintla of Shakargarh, and the Kandi and Pahari of Pathankot. Even in the other circles there are individual villages or groups of villages which require watching: the registers shew these. It must be remembered that canal and kuhl irrigated villages receive irrigation, as a rule, only in the kharif, and that the rabi throughout the district, except in fully well-irrigated tracts, depends entirely upon rain.
- 3. Suspension of the whole demand is not usually called for, except in the Bharrari, where in a good or even a normal year recoveries can be freely made. The people will take suspensions readily, provided that they distinctly understand that the subsequent recoveries will not impose too heavy a burden on them in any one harvest. This salutary principle has not always been observed in the past. The general rule, as laid down in paragraph 12 of the Financial Commissioners' orders on the Shakargarh Assessment Report, should be that the total amount to be realised in any one harvest, including arrears, should not exceed 1½ times the normal incidence. To this rule, however, there must be obvious exceptions. With a bumper harvest, more may be recovered, but the total amount should never be as much as twice the demand of the current harvest. In villages where the rabi harvest predominates but the instalments are equal, suspensions may be needed in the kharif, but can be recovered in the rabi. Further recoveries should be, at any rate to some extent, governed by the range of prices prevailing at harvest time. When prices are good, it would be anomalous to adhere to a fixed normal rate laid down to suit a lower range of prices. It is often useful to frame a rough half net assets estimate for each village, by applying to the area of each of the principal crops a rate worked out according to the prevailing price of each staple and the circle rates of outturn as given in the Assessment Reports. I have found this method of great assistance in deciding upon both suspensions and recoveries, but in both cases the results of the half net assets estimate must be used with caution.
- 4. Even though the owners of a village are well-to-do, it may be impossible owing to the presence of occupancy tenants paying at revenue rates, with or without a malikana, to recover the whole of the demand in any one harvest, and suspensions may be needed. This is especially the case in the Kandi circle of the Pathankot tahsil.
- 5. Remissions are rarely required, save in a few very weak villages, where they should be given when the amount suspended exceeds one year's demand. This principle should, as directed in paragraph 12 of the Financial Commissioners' orders on the Shakargarh Assessment Report, be applied also to the whole of the Bharrari of Shakargarh. It should also, I think, be applied to the rest of the district as well, but in any case to the Dhaia Bet Beas of Gurdaspur and the Kandi and Pahari of Pathankot.
- 6. Care should be taken that no remission of revenue is granted to a landlord who has not remitted the rent paid by his tenants (paragraph 30 of the Tenancy Act).

APPENDIX VI.

DIALLUVION RULES.

PART A.

Rules relating to the imposition, remission and reduction of assessment on lands subject to river or torrent action.

I.—Imposition of assessment.

- 1. The following rates should be applied in assessing-
 - (a) land subject to river or torrent action and not cultivated a settlement, but subsequently brought under cultivation:
 - (b) land originally assessed as cultivated, but of which the assessment was subsequently remitted under these rules and which has again been brought under cultivation.

			==-						F	AT	ES	0.	N (CU	LTI	VA	TIC	ON	_						=-
	Detatl.		IN THE BET RAVI AND MASTERN NAHRI CIRCLES IN BATALA, AND IN THE BET RAVI CIBCLE IN GUE- DASPUL. (1 AORE = 9.68 KANALS.)					IN THE DHAIA BET BEAS CIRCLE IN GUBDASPUB, AND IN THE BET RAVI PATHANIT AND KANDI CIRCLES. (1 ACRE = 9.68 KANALS.)					IN THE SHAKAR-					i ir ir						LE C CLA	
			Pe	74	X	Pe	r	100 E	Pe:	a The	1	Pe			Pe	_	1	Per			Per		1	Per	
		R	s. A	. P	R	s. A	. P.	R	B. A	P.	R	ι. Δ	. P.	\mathbf{R}_{i}	s, A	. P.	Rs	, A	Ρ.	Re	A	. P.	Rs	. A.	P.
∆dna	Land sown with poor rice, such as kharsu, koda, sawankh, mash, nung, moth, methi, kinu, choral, mattar, alsi, masar, barley, barley and masar, raungh and fodder crops.		3	4	いる。		0	Line Line		0	0	1	9		2	0	0	2	3	0 1	14	0	0	1	9:
Kamil	Land sown with other crops and all land bearing two crops in one year.	2	4	3	0	3	9	1	18	6	0	3	3	2	4	0	0	4	6	1 1	.2	0	0	3.	6

- 2. Ordinarily the assessment will be made by the erop, but when the results are poor the assessing officer may, for special reasons to be noted on the file, assess any class of crop at the next lowest rate, or even in the case of the lowest class, altogether remit the assessment if the results are below a four-anna yield on the whole field.
- 3. Land assessed at the lower rate or not assessed at all under the preceding rule shall be assessed at the full higher or lower rate, as the case may be, in the following year, unless for special reasons the assessing officer retains the more lenient or no assessment.
- 4. When it is doubtful which of two rates should be applied, the lower should be taken.
- 5. When the culturable area fit for grazing is considerable and exceeds 5,000 kanals the Collector may, on the report of the assessing officer, impose a rate of one anna per glumao. In such cases whole squares should, as far as possible, be included in the area to be assessed, to avoid unnecessary increase in field numbers.
- 6. The classification of land should not be too minute; unless a survey number is very large, it will usually be best to apply a single rate to the whole number, even though different parts of the field may differ somewhat in the character of the crops grown and in the quality of the soil.

7. In calculating the revenue no fractions of less than 10 marlas should be taken into account; less than this will be disregarded, and more than this will be taken as a whole kanal.

II.—Remission and reduction of assessment.

- 8. When by river or torrent action land assessed as cultivated is carried away or rendered unfit for cultivation or land assessed as pasture is carried away or rendered unfit for grazing, the assessment thereon shall be remitted.
- 9. Land which has been rendered culturable by river or torrent action and subjected to assessment at settlement or under these rules, and subsequently remains uncultivated for four successive harvests, may be presumed to have been rendered unfit for cultivation by river or torrent
- 10. When the quality of land which has been subjected to assessment at settlement or to the higher rate prescribed in rule 1 of these rules is found to have deteriorated owing to the action of the river or torrent or a deposit of sand, the assessment thereon may be reduced to the lower rate prescribed in rule 1, provided that the settlement revenue or the full rate once imposed shall not be reduced merely because the land is found to be sown with inferior crops. The higher rate will be imposed or re-imposed, as the case may be, when the land is again found to have improved.
- 11. Save as provided in rule 9, nothing in these rules shall be taken to authorise the remission or reduction of land revenue on land which is not at the time subject to river or torrent action.
- 12. When, owing to drainage into a torrent, a ravine has formed in cultivated land which is assessed to land revenue, the land which thus falls out of cultivation may be treated as if it had been rendered unfit for cultivation by the action of the torrent, and the assessment may be remitted accordingly.

PART B. Procedure.

- 1. The Collector shall maintain in his office -
 - (a) a list of estates subject to the action of the following rivers. and their branches, vis., Beas, Chakki, Ravi, including Bhatiya, Masto and Singrawan, Ujh and Bein;
- (b) a list of estates subject to the action of torrents; and any alterations from time to time necessitated in these lists shall be made under his orders.
- 2. In estates subject to the action of the rivers the measurements will be made annually as soon as the river has fallen to its ordinary cold weather level, which will usually be by the 1st of December. In estates subject to the action of torrents the measurements will usually be made in the year of quadrennial attestation; but when in any estate changes of sufficient importance have occurred in the estate as a whole or in individual holdings the measurements may be ordered by the Collector in any other year. At the end of the kharif girdawari the tahsildar will submit to the Collector a list of estates not coming under quadrennial attestation in which such measurements appear to be necessary; and the Collector will return the list with his orders thereon.
- 3. The changes caused by river or torrent action should be shown both in the patwaris' own dialluvion tracing and in the tracing to be filed with the Government copy of the dialluvion file. The former tracing should be prepared from the village map on unbacked mapping sheets and cover the whole of the village or the part liable to be affected by dialluvion changes, and should continue to be used till a fresh tracing is prepared under rule 5. The

					RAT	RATES ON CULLIVATION.	LEIVAL	0.Y.			
	l'stale.	IN THE AND E NAHRICO BATALA THE BET MAIRA CIECLES (1 ACRES KAN	IN THE BET RAY AND ESCREN NARI CIRCLES IN BATALAND IN MIRA KIRAN CIRCLES IN GUR- LACUE IN GUR- LACUE IN GUR- (LACUE = 9:68 KANALS).	l	IN TRE DAALS BET BRESCIEGE IN GUEDARPUR, AND LY THES BET RAT, DAHAYI, SHAH NAHEL AND KANDI CREEK, (LACKE 968 KANAKS)	IN THE SEARAN- GANTARIL (EX CLUDING THE PAINTLE CHOLE (1 ACEE = 8 KANALE).	IN THE SEAKAR- GART TAUSTI, (TX. CUUDING THE PAINTLA CHECKS) (A ACKE = 8 KANALG),	IF THE CHAK ANDRAR IN PA- TRANKOT AND THE PAINTER IN SHANGEAIN (1 ACER = 8 KANALS).	IN THE CHAR ANDHAR IN PA- HANKOT AND THE PAINTLA IN SHAKARGAR (1 ACRE = 8 KANAIS),	IN THE HILL CIS CLE OF THE PA- THANGOT THEIL (1 ACES = 10°64 EAKAIS).	IN THE HILL CIE- GLE OF THE PA- THANNOT TARRILL, (1 ACER = 10°64 EAMALE).
		Per sore.	Per kanal.	Per acre.	Per kanal.	Per acre.	Per kanal.	Per acro.	Per kanal.	Per acre.	Per kanal.
		Rs. A. P.	P. Bs. A. P. Rs. A. P.	RB. A. P.	BS. A. P.	Вв. А. Р.	R8. A. P.	Rs. A. P	Rs. A. P.	Rs. A. P. Rs. A. P. Bs, A. P.	Re, A. I
Adns	Land sown with poor rice such as kharsu, kods, sawankh, mash, mung, much, matter, als, masu, barley, bardey and masar, rauugn and fodder crops,	# **	0	1 2 0	6 I	Ф 81 гг	ф ц	0 14 0	6 7	0 13 0	0 1 3
Ksmił	Land sown with other crops and all land bearing two crops in one year.	था श्र	а гэ Сэ	1 15 6	n Er	එ ආ න	9 4 6	1120	ය භ	1 10 0	9 4

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tracing to be filed with the Government copy of the dialluvion file will be on unbacked mapping sheets of suitable size and will be prepared each year.

- 4. The patwaris' copy of the dialluvion tracing shall show the edge of the river or torrent as well as any new fields formed as the result of dialluvion changes. The line representing the edge should be blue, and at both ends of it the year in which the measurements were made should be noted. The position of the edge will be fixed by measuring the remaining sides of the fields which are partly under the river or torrent and the position of the new fields with reference to the old fields out of which they have been formed; but if this method be not practicable, then the squares covering the affected part of the village will be reproduced and off-sets taken from them. When the assessment has been made the fields assessed at the "adna" rate will be marked off by lines of green dots around them. The dots will be run together into a continuous green line when the "kamil" rate has been imposed. The tracing to be attached to the Government copy of the dialluvion file will reproduce only the changes of the particular year for which it has been prepared, but in order that there may remain no doubt as to the position of any new fields, the fields that touch them should also be shown.
- 5. The procedure for the correction of field maps will be applied without any modification to the portions of dialluvion villages beyond the reach of river or torrent action, but as regards areas subject to such action, the procedure will be modified as follows:—
 - (a) Tatimma shajras will be prepared only for changes other than those due to dialluvion. Changes due to dialluvion will be shown from year to year in the dialluvion tracings prescribed in rule 3.
 - (b) At the end of every fourth year when a special attestation is carried out a fresh tracing of the portion of the village subject to river or torrent action will be prepared, and all new fields, whether formed in consequence of dialluvion or other changes and whether shown in the old dialluvion tracing or separate tatimma shajras, will be incorporated therein. This tracing will be prepared in duplicate, and one copy of it will be filed in the tahsil with the jamabandi and the other retained by the patwari for use during the next four years. Both copies will be duly attested by the kanungo. The preparation of a fresh tracing may be ordered even before the quadrennial attestation if the old tracing cannot continue to be used without producing confusion.
 - (c) In the dialluvion files new fields will be given temporary numbers, such as \(\frac{40}{1}, \frac{40}{2}, \frac{411}{3}, \text{ &c.}, \) but all fields incorporated in the fresh tracing prepared under (b) will at the time of incorporation be renumbered in accordance with the system laid down in paragraph 40 and duly entered in the field-book prescribed in paragraph 42 of Standing Order No. 16. Fields shown in tatimma shajras will have been already numbered in accordance with the system.
- 6. It is not necessary that every new field should be given a new number. If a portion of a field is submerged and the ownership of that portion remains unaltered a new sub-number should not be given thereto as the soil entry will show all that is necessary. Again, if any portions of an uncultivated plot are brought under cultivation, the use of sub-numbers should be avoided unless it is absolutely necessary for the purposes of girdawari. In a case like this, if sufficient space is not available on the page of the khasra on which the original number is entered, the necessary entries can be made at the end of the khasra and a brief note stating that this has been done made opposite the number in question. In writing a new khasra care should be taken to leave sufficient space for such entries as regards numbers containing large areas of uncultivated land, portions of which are likely to be broken up from time to time.

- 7. As the measurements proceed the patwari will prepare form A, but the entries in columns 15 and 16 will remain in pencil till the tahsildar has made his visit and formed his opinion as to the assessment. He will also make in the register of fields previously assessed below full rates (form C) the necessary entries relating to crops grown in the past year or in the case of villages affected by torrents in all years since dialluvion measurements were last made.
- 8. The kanungo will satisfy himself that the patwari has included in his maps and khasra all land which should be included, will test the measurements, and check the khasra.
- 9. As soon as the khasra has been cheeked by the kanungo, the patwari will prepare in duplicate in form D a village abstract of changes due to river or torrent action. He will make all the entries in columns I to 3, and also those giving the details of area and revenue for the previous year in ink. The entries showing deductions and additions and the area and revenue for the current year will be made in pencil.
- as to classes of land, rates, and revenue after inspecting the fields and examining the entries in the khasra and in form C. He will cause to be entered in ink in the khasra the elass and rate for each field as determined by himself. He will at the same time make the patwari enter in form C the rate against each field of which the elass has been changed, and also all fields assessed for the first time below settlement or full rates. He will also have an extract from form C, showing those numbers only of which the assessment has been changed in the current year, put on the file. Form D will be completed by the patwari under the tahsildar's directions. The tahsildar will add a brief note to the file, explaining the changes which have occurred and his assessment proposals. He will then sign the map, khasra, extract from form C, and abstract of area and revenue (form D) taking over the extract and the Government copies of the other papers. He will also sign the register (form C) which the patwari will retain in addition to his own copies of the other papers.
- 11. When the Revenue Officer who is empowered to pass final orders on the assessment disposes of the case, any corrections in the papers required will be made in the Government copies, and the patwari will be ordered to correct his own copies. He will also prepare in duplicate a knewat showing the result of the new assessment (form B) and forward both copies to the tahsildar through the kanungo. The tahsildar will see that the knewat agrees with the orders, and signing both copies will file one with the record and return the other to the patwari. The latter will embody the new figures in future bachh papers and will give free of charge a fard, showing the result, to each khatedar concerned.
- 12. The whole file regarding changes of assessment due to river or torrent action will be prepared on Lucknow paper stitched at the back in book form. The tracings of maps will be placed in an envelope of the full size of the file and will not be folded more than twice.
- 13. The district report on changes of assessment due to river or torrent action will be prepared in form F after obtaining the necessary figures from the tabsils in form E.
- 14. Cases frequently occur in which remission of the current demand is required in consequence of destructive inundation, although no permanent injury has been done to the soil rendering a reduction of revenue needful. When making his inspection, the tahsildar should report on all such cases, including cases occurring in estates in which no measurements will be made in the current year. Reports recommending such remissions should be made in form A or B appended to Standing Order No. 30.

FORM A.

Khasra of changes in class of land due to river or torrent action.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
					1	ORMER					Pres	ent				
									песев-			Cr	op.	Rev	enus.	
Serial No.	Khasra No.	Thewat No.	Owner, briefly.	Tenant, briefly.	Area.	Class of land.	Rate of assessment.	Klasra No,	Area calculation where neces-	Area.	Class of land.	Kharif.	Rabi.	Class.	Rate.	REMARKS
								Chi		10						

FORM B.

Khewat showing changes in revenue of holdings due to river action as ascertained at end of kharif 19

1	2	3	4	5	6	7	8	9 등 미국 등	-10	11	12	13	14	15	16
		÷	year's	KRASI	a No.]	ORMER		P	RESENT	!	DIFFE	BENCE		
Khewat No. in last jamabandi.	Khatauni No.	Name of owner and of tenant where necessary.	Assessment of khata according to last papers.	014.	New.	Area and kind of soil.	Rate.	Demand.	Area and kind of soil,	Rate.	Demand,	Increase,	Decrease.	Revenue of khata as now fixed.	Remarus.

FORM C.

Register of fields assessed below full rates and of fields assessed at grazing rates.

1	2	3	4	5	6	7	8
				Sambat 1	9		
	nt (briefly).		Cı	rops.		Remarks.	(Columns to be repeated for four years in all.)
Khasra No.	Owner and tenant (briefly).	Area with detail.	Kharif.	Rabi.	Rate.	Keinarks.	four years in all.)
			6		3		
		1	(हे हुए हैं ते हैं। य प्रापेत तथ			
						3	
				-			

FORM D.

Statement of diluvion and alluvion assessment made in

for the

25	1		RENVERS.	ſ
24	TRE	. Intal.	Assigned revenue.	
	NEW ASSESSMENT FOR THE CURRENT AGRICULTURAL YEAR.		Klialsa.	
83	SEMENT AGRICU YPAB.	Rabi 19	Assigned revenue.	
	SEESI T AG		Khalsa,	
22	BBEN	Krarif 19	Assigned revenue.	
	NEW CUBB		Khalsa,	
21	ON	.1,010.T	Акыдпед течепце.	
	ASE NGE		K halsa.	
20	Proposed increases account of change the beiter.	Rabi 19	Assigned revenue,	
	T OF		Khalsa.	
13	COUN	Kranif 19	Ава gned течепно.	
	F 3		Klislaa.	
18	FOR	Total.	Assigned revenue.	
	NGE		Khalsa,	
17	CHA CHA TORSH	61 <i>1924</i>	Assigned revenue.	
	Proposed reduction of Account or change for the worse.		Klialsa.	
16	ROPOR COUX	61 <i>Liana</i> A	Assigned revenue.	
	F 94	Y	Kl.slsa.	
15	4	lice to baix dans	Rates fixed at settlement to	
14			Present assessable area.	
13			JatoT	
	4	. et.		
12	ARE	For the detter.	рА опрег свивез.	
	tabu	or th	Productive power increased	
11	TLL	H	turable.	
	0% Ct		Unculturable rendered cul-	
10	NGE		.late.T	
_ [в спл	ė	[64v.T	
6	NAIUBB OF CHANGE OF CCLTUBABLE AREA	For the worse	ed by other eauses.	
	NAID	or th	-deinimib sowoq ovitonbord	***************************************
80		ř.	sandy torrents.	
			Rendered unculturable by	
1-				
			Junna by last assessment.	
9		aranent,	Assessable area by last meas	*
70			Detail of kind of soil.	
4			Name of village,	
· 69			lishat to small	
64			Mame of river.	
7			No.	:

Note.—1. The figures in column 7 should agree with the figures in column 24 of the statement for the previous year.
2. The assessment in columns 22 to 24 is also taken as the prospective assessment for the next agricultural year.

FORM E.

Statement of financial results of alluvion and diluvion assessment for the for the agricultural year (kharif 19 and rabi 19), and the proposed remission in the revenue roll and amount to be collected as fluctuating revenue.

1	2	3	4	Б	6	7	8	9	10	11
District.	Tahsil,	Assessment circle.	River.	Jama of villages affected for agricul- tural year previous to period under report, kharif 19, rabi 19	Gross increase of assessment due to alluvion, &c. (including jagir).	Gross decrease of assessment due to diluvion, &c. (including jagir).	Net increase (khalsa to be collected as fuctuating revenue).	Net decrease (khalsa to be remitted).	New assessment of villages affected for agricultural year, kharif 19 , rabi	REMARES.

FORM F.—(IN ENGLISH.)

Statement of financial results of alluvion and diluvion assessment for the district made in 19 for the agricultural year (kharif 19 and rabi 19), and the proposed remission in the revenue roll and amount to be collected as fluctuating revenue.

River. River. Gross increase of assessment due to alluvion, &c. (including jagir). Gross decrease of assessment due to diluvion, &c. (including jagir). Net increase (khalsa to be collected as fluctuating revenue). Net decrease (khalsa to be remitted). Net decrease (khalsa to be remitted).	1	2	3	4.	1175	6	7	8	9
	District.	Taheil.	River,	of assessment due (including jagir).	of assessment due t	Net increase (khalsa to be collected as fluctuating revenue).	Net decrease (khalsa to be remitted).	amount of increase or decrebe shown in the revenue roll following agricultural year.	Remarks.

Notes.—Column 3.—The figures for the six larger rivers of the province should be given separately. These for the minor streams may be lumped together.

Column 9.—Note in this column the officer by whom the assessments were made and tested and the method adopted in assessing. Reference should be made to settlement reports prescribing such method or to correspondence conveying special sanction.

DATED
The 19

Deputy Commissioner.

Columns 6, 7 and 8.—The amount shown in column 5 will be the difference between columns 6 and 7 and should be preceded by a plus or minus, as the case may be.

MAP OF GURDASPUR DISTRICT

Scale Tinch = 8 Miles

Miles 8 6 4 2 0 3 PROVINCE OF JAMMU TERRITORY REFERENCES ASSESSMENT CIRCLE ... RAILWAY LINE & STATION ... NALA & CANAL DISTRIBUTARY.

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FINAL REPORT OF THE REVISION OF THE SETTLEMENT OF THE GURDASPUR DISTRICT, 1912.

